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The Word Order Phenomenon in Maithili Simple Sentences:

A TG Approach

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Introduction¹

The word order in Maithili² has generally been regarded as fairly 'free' (cf. Jha (1958)). In this article we, however, show that this assumption cannot be sustained in the light of the facts about the Maithili data. Instead, we argue that Maithili is a 'configurational' language with a fixed underlying structure and that the permutations of elements within a clause are generally taken care of by transformational rules.

In section 1 we examine the word order phenomenon in Maithili simple sentences. We demonstrate that the word order in the language, which seems to be fairly free at the surface, is in fact 'fixed' at the underlying level, and that the change in word order generally triggers a change in the role of the affected elements, making them either the topic or focus of a clause. (By 'topic' and 'focus' we roughly mean 'given' and 'new' information, respectively. See Firbas (1969) and Reinhart (1982) for their further discussion). In section 2 we propose a set of categorial rules to generate the underlying structures of Maithili simple sentences. In section 3 we assume that the role - oriented change in the underlying structures, which involves leftward movement, can be handled by postulating the rules of Focusing and Topicalization in the transformational component of the grammar. In section 4 we observe that the change in the underlying structures may not be sometimes role - oriented. For such cases, we postulate the rule of Scrambling, a reordering rule in the PF component. We conclude by summarizing the observations made in the various sections of this article.

The Word Order Phenomenon in Maithili: A Reappraisal. As pointed out above, the word order in Maithili is generally considered fairly 'free'. By 'free' we mean that the constituents of a sentence can occur in any order, without any semantic effects. For instance, a transitive construction like (1) can have any permutation of Subject (S), Object (O), and Verb (V):

- | | | | | | | |
|-----|----|------------------------|--------|----------|----|-----|
| (1) | a. | raam | kitaab | kinat | -- | SOV |
| | | Ram | book | will buy | | |
| | | 'Ram will buy a book.' | | | | |
| | b. | kitaab | raam | kinat. | -- | OSV |
| | c. | Kitaab | kinat | raam. | -- | OVS |
| | d. | kinat | raam | kitaab. | -- | VSO |
| | e. | kinat | kitaab | raam. | -- | VOS |
| | f. | raam | kinat | kitaab. | -- | SVO |

The freedom of word order also extends to Indirect Object and adverbials of various types. What is more striking about the word order in Maithili is that even elements like adjectives and modifiers within NP constructions (as in (2a)) and auxiliaries within verbal sequences (as in (3a)) can be permuted with the other elements of a sentence:

- | | | | | | | | |
|-----|----|------------------------------------|--------------------------------|----------|--------|---------|------|
| (2) | a. | Geetaa | [_{NP} [_A | hariyar] | saari] | pahirne | achi |
| | | Geeta | | green | saree | wearing | is |
| | | 'Geeta is wearing a green saree'. | | | | | |
| | b. | geetaa saari hariyar pahirne achi. | | | | | |
| | c. | geetaa saari pahirne achi hariyar. | | | | | |
-
- | | | | | |
|-----|----|------------------|--------|---------|
| (3) | a. | raam | khaait | achi. |
| | | Ram | eating | is |
| | | 'Ram is eating'. | | |
| | b. | khaait | achi | raam. |
| | c. | achi | raam | khaait. |

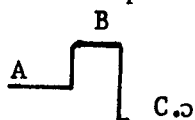
This does not mean that the word order in Maithili is absolutely free; it has certain restrictions. For instance, the permutation of adjective hariyar in (2) is permissible with the other elements of the sentence (as shown in (2 a - c)) but not with geetaa:

- (4) * hariyar geetaa saari pahirne achi.

Jha (1958), who lists such restrictions, arrives at the conclusion that Maithili word order is free, subject to some restrictions.

In the following paragraphs we demonstrate, however, that the facts about the Maithili data do not support this conclusion. Instead of treating Maithili as a language with fairly free word order, we assume that Maithili, like English, is a language with a fixed underlying structure. What we expect from a language with genuinely free word order is that the various permutations of the elements of a sentence have the same meaning. Such an expectation is, however, not fulfilled in Maithili. A sentence in the language can be analyzed into constituents which have fixed positions, stress and intonation patterns as well as meanings. Consider the table in which the different permutations of S, O, and V in (5) result in the

change of their structural positions and also produce different phonological and semantic effects. (A, B, and C in the table indicate the intonation pattern of a sentence; i.e., A stands for middle pitch, B for high pitch, and C for low pitch, as shown in



(5)	Phonological Change			Semantic Change
	A	B	C	
a. (i)			raam kitaab kinat	Ram will buy a book.
(ii)		raam	kitaab kinat	It is Ram who will buy a book.
(iii)		raam kitaab	kinat	It is Ram who will buy a book.
(iv)	raam	kitaab	kinat	As for Ram, it is a book that he will buy.
(v)	raam kitaab	kinat		What Ram will do is to buy a book.
b. (i)		kitaab	raam kinat	It is a book that Ram will buy.
(ii)		kitaab raam	kinat	It is a book that Ram will buy.
(iii)	kitaab	raam	kinat	As for the book, it is Ram who will buy it.
(iv)	kitaab raam	kinat		As for the book, Ram will buy (and not borrow) it.
c. (i)		kitaab	kinat raam	It is a book that Ram will buy.
(ii)		kitaab kinat	raam	It is a book that Ram will buy (and not borrow).
(iii)	kitaab	kinat	raam	As for the book, Ram will buy (and not borrow) it.
(iv)	kitaab kinat	raam		As for buying the book, it is Ram who will do it.

d. (i)		kinat	raam kitaab	Ram will buy (and not borrow) a book.
(ii)		kinat raam	kitaab	It is Ram who will buy (and not borrow) a book.
(iii)	kinat	raam	kitaab	It is Ram who will buy a book.
(iv)	kinat raam	kitaab		What Ram will buy is a book (and not a pen).
e. (i)		kinat	kitaab raam	Ram will buy (and not borrow) a book.
(ii)		kinat kitaab	raam	It is a book that Ram will buy (and borrow).
(iii)	kinat	kitaab	raam	As for buying, it is a book that Ram will buy.
(iv)	kinat kitaab	raam		As for buying a book, it is Ram who will do it.
f. (i)		raam	kinat kitaab	It is Ram who will buy a book.
(ii)		raam kinat	kitaab	It is Ram who will buy (and not borrow) a book.
(iii)	raam	kinat	kitaab	As for Ram, he will buy (and not borrow) a book.
(iv)	raam kinat	kitaab		What Ram will buy is a book (and not a pen).

Different permutations of S, O, and V in Maithili and their phonological and semantic equivalents.

A comparison of the positions A, B, and C mentioned under the phonological change and their semantic equivalents reveals the following facts:

- (i) Position A can be occupied by null to any number of elements from a sentence. As indicated, the elements within this position are pronounced at an even middle pitch and are (normally) followed by a slight pause. They are interpreted as topicalized elements; i.e., paraphrased as: 'As for..', 'About..', etc.

- (ii) Like position A, position B can also contain more than one element in all these cases (though less frequently than position A). It carries the sentence (i.e., nuclear) stress and is followed by a high fall. It functions as 'focus', which can be paraphrased as: 'It is ... (and not something else) that ...'
- (iii) Similarly, position C can contain elements ranging from null to any number. These elements are pronounced at a low pitch and serve no significant functional roles like topicalization and focusing.

These observations lead us to make the following generalizations about the Maithili word order:

- (i) The only word order which may remain neutral to phonological changes and their subsequent semantic effects (viz, topicalization and focusing) is SOV, as in (5ai).
- (ii) A change in SOV order generally triggers a change in the phonological pattern and the meaning.
- (iii) Elements contained in A, B, and C positions are free in order within their respective domains and their freedom does not affect the phonological pattern and the meaning.

On the basis of this analysis, we assume that SOV is the underlying structure for Maithili transitive constructions, generated by categorial rules. Besides, the grammar has transformations like Focusing and Topicalization, which move elements from an SOV structure to the focused and topicalized positions (viz., B and A positions in (5), respectively). (Note that SOV order can also undergo change in meaning and phonological pattern, as shown in (5a ii-v). We discuss this issue in subsection 3.2.). Finally, the freedom of word order within the various positions is taken care of by the rule of Scrabbing in the PF component. Thus, a grammar with these mechanisms can accommodate all the properties of the Maithili word order, listed above. We discuss each of these mechanisms in the sections that follow.

Categorial Rules

To generate the simple sentences of Maithili we propose the following (preliminary) set of categorial rules:

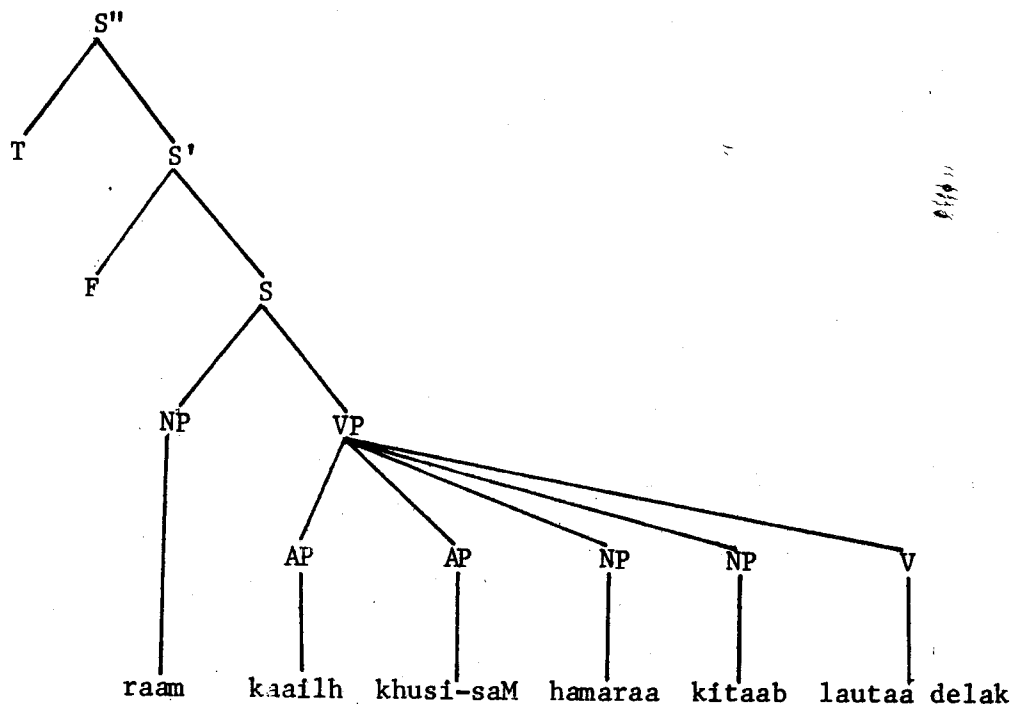
- (6) a. $S'' \longrightarrow T \quad S'$
- b. $S' \longrightarrow F \quad S$
- c. $\left\{ \begin{matrix} T \\ F \end{matrix} \right\} \longrightarrow X^{n*}$
- d. $S \longrightarrow NP \quad VP^3$
- e. $VP \longrightarrow (AP^*) \quad (NP) \quad (NP) \quad V$

(By X^{n*} in (6c) we mean any number of categories (i.e., lexical categories or their projections)). For illustration, the categorial rules in (6) will generate the tree in (7b) for the sentence in (7a):

- (7) a. raam kaailh khusi-saM hamaraa kitaab
 Ram yesterday happily to me book
 lautaa delak.
 returned

'Ram happily returned the book to me yesterday'.

b.



The tree diagram for (7a).

In the tree diagram for (7a) T immediately dominated by s'' functions as Topic, while F immediately dominated by S' functions as Focus. Kiss (1981 a, 1981 b, 1981 c) also uses T and F nodes in her analysis of Hungarian and Japanese. But the stipulation of these nodes faces a conceptual difficulty noted by Alec Marantz (personal communication to Probal Dasgupta), who argues that Topic and Focus, which are functional notions, should not, strictly speaking, be permitted to appear as nodes in a categorial tree. However, we, like Kiss, treat T and F as syntactic (not functional) nodes for expository purposes and X^{n*} as any number of elements inside the T and F positions.

- (9) a. $[_S' \quad [_F e] \quad [_S \text{ hari upanyaas padhaet achi }]]$

Hari novel reading is
'Hari is reading a novel'.

- b. $[_S' \quad [_F \text{ upanyaas}_i] \quad [_S \text{ hari } t_i \text{ padhaet achi }]]$

'It is a novel (and not anything else) that Hari is reading'.

There are, however, a set of specific elements which need to be focused obligatorily. Such elements include interrogatives and words suffixed with focusing operators like *-etaa* (= 'only for') and *-e* (= 'It is X that/who...'). Consider (10-12). The structures in (a), which do not involve Focusing, are not permissible and their counterparts in (b), which involve Focusing, are permissible:

- (10) a. $*[_S' \quad [_F^e] \quad [_S \text{ raam kata achi }]]$

Ram where is

- b. $[_S' \quad [_F \text{ kata;}] \quad [_S \text{ raam } t_i \text{ achi }]]$

'Where is Ram ?'

- (11) a. $*[_S' \quad [_F^e] \quad [_S \text{ raamu-etaa jaet }]]$

Ramu-only will go

- b. $[_S' \quad [_F \text{ ramu-etaa;}] \quad [_S \text{ } t_i \text{ jaet }]]$

'It is only Ramu who will go.'

- (12) a. $*[_S' \quad [_F^e] \quad [_S \text{ ham aai-e jaeb }]]$

I today-only will go

- b. $[_S' \quad [_F \text{ aai-e}_i] \quad [_S \text{ ham } t_i \text{ jaeb }]]$

'It is only today that I will go.'

The unacceptable structures in (10-12) must be somehow blocked. Since they result from the optionality of Focusing, we can stipulate a surface filter to rule them out. (See Chomsky and Lasnik (1977)). For the purpose, suppose that the elements which are obligatorily focused (including interrogative elements) have the lexical feature $[+F]$. To render Focusing obligatory in such cases, we may propose the following filter:

- (13) $*[_S' \quad X^{n*} \quad [_S \dots X \dots]]^4$
 $[+F]$

- b. $[S'' [T \text{ raam}_j \text{ e}] [S' [F \text{ aai-etaai}] [S \text{ t}_j \text{ t}_i \text{ ghar jaet}]]]$

'As for Ram, it is only for today that he will go home.'

- c. $[S'' [T \text{ raam}_j \text{ ghar}_k \text{ e}] [S' [F \text{ aai-ettaai}]$

$[S \text{ t}_j \text{ t}_i \text{ t}_k \text{ jaet}]]]$

(same as in b.)

- d. $[S'' [T \text{ raam}_j \text{ ghar}_k \text{ jaet}_l] [S' [F \text{ aai-etaai}]$

$[S \text{ t}_j \text{ t}_i \text{ t}_k \text{ t}_l]]]$

'As for Ram's going home, it is only for today.'

Finally, similar to the elements which are obligatorily focused, there are a few elements which undergo obligatory topicalization. One of them is an NP postmodified by the morpheme -ta, where NP -ta can be paraphrased as: 'So far as NP is concerned, ...'. Consider the examples in (17):

- (17) a. $[S'' [T \text{ e}] [S' [F \text{ aai--e}_i] [S \text{ raam-ta t}_i \text{ gel}]]]$

today-[+F] Ram-[+T] went

- b. $[S'' [T \text{ raam-ta}_j] [S' [F \text{ aai-e}_i] [S \text{ t}_j \text{ t}_i \text{ gel}]]]$

'So far as Ram is concerned, he went today.'

To make Topicalization obligatory in such cases, let us say that elements modified by -ta and other topicalizing markers (if any) have the features $[+T]$ (=topicalization) specified in the lexicon, and that a grammar of Maithili has the surface filter in (18), which blocks the configuration given in (18):

- (18) $[S'' \text{ x}^{n*} \dots [S \dots \text{ x} \dots]] 5$
 $[+T]$

As it is obvious from the foregoing analysis, Topicalization is identical with Focusing except that elements are moved to the T position instead of the F position, and also that two processes vary in their lists of elements which are obligatorily moved. We assume that they are the only transformations which can apply in simple Maithili sentences.

Before we conclude this subsection, let us turn to the unexplained issue mentioned in section. We observed that the surface word order in all the sentences in (5ai-v) remains the same, viz., SOV, and yet they vary in their intonation patterns.

and semantic interpretations. Given the two transformations Focusing and Topicalization, it is not difficult to account for such variations.

Following the categorial rules proposed in (6), we can have (19) as the common underlying structure for all the five structures in (5ai-v):

- (19) $[_{S''} [_{Te} [_{S'} [_{Fe} [_{S} \text{raam kitaab kinat}]]]]]$

When no rule applies, (5ai) is derived. To get (5aif), Focusing operates on (19), moving raam to the F position, as shown in (20):

- (20) $[_{S''} [_{Te} [_{S'} [_{F} \text{raam}_i] [_{S} t_i \text{kitaab kinat}]]]]$

In the derivation of (5aiii), Focusing applies twice to move raam and kitaab separately to the F position, yielding the structure in (21):

- (21) $[_{S''} [_{Te} [_{S'} [_{F} \text{raam}_i \text{kitaab}_j] [_{S} t_i t_j \text{kinat}]]]]$

In the case of (5a iv), Focusing moves kitaab to the F position, as in (21 a), and then Topicalization moves raam to the T position, as in (21 b):

- (21) a. $[_{S''} [_{Te} [_{S'} [_{F} \text{kitaab}_j] [_{S} \text{raam } t_i \text{kinat}]]]]$
 b. $[_{S''} [_{T} \text{raam}_j] [_{S'} [_{F} \text{kitaab}_i] [_{S} t_j t_i \text{kinat}]]]]$

Finally, the derivation of (5av) requires three steps: first kinat is moved to the F position by Focusing (as in (22 a)); secondly, Topicalization moves raam to the T position (as in (22 b)); and finally, Topicalization again applies, moving kitaab to the T position (as in (22 c)):

- (22) a. $[_{S''} [_{Te} [_{S'} [_{F} \text{kinat}_i] [_{S} \text{raam kitaab } t_i]]]]$
 b. $[_{S''} [_{T} \text{raam}_j \text{e}] [_{S'} [_{F} \text{kinat}_i] [_{S} t_j \text{kitaab } t_i]]]]$
 c. $[_{S''} [_{T} \text{raam}_j \text{kitaab}_k] [_{S'} [_{F} \text{kinat}_i] [_{S} t_j t_k t_i]]]]$

Assuming this analysis, we may justify the variations (semantic and phonological) existing in (5ai-v) on the ground that these structures involve different syntactic processes and do not have a common derivation.

Scrambling

As noted in section 1, elements within the T, F, and S positions can be freely permuted among themselves within their respective domains. Unlike the preposing of elements by Topicalization and Focusing, these permutations have no semantic bearings at all and are, therefore, not relevant for the representations at L F. Within the E S T framework, the rule of Scrambling seems to be an appropriate candidate for dealing with such permutations. When the rule applies, it reorders elements within a given domain (namely, T, F, or S). It is a rule in the PF component of grammar and operates on S-structure, an output of transformational rules.

Conclusion

In the preceding sections we have presented a transformational account of the word order phenomenon in Maithili simple sentences. We have first demonstrated that the word order in the language, which appears to be fairly free, is in fact fixed at the base, viz., SOV and that a change in the SOV pattern is due to the change in the functional roles of elements within S, viz., topicalization and focusing. Such a functional change has been accounted for by proposing two transformational rules—Topicalization and Focusing. There are, however, some exceptions to this generalization, in that certain movements do not involve any functional roles like topicalization and focusing. For such cases, we have suggested the rule of Scrambling, which applies in the PF component and whose output is not relevant to the LF component. In this regard, it is worth exploring other Indo-Aryan Languages to see whether the analysis presented for Maithili simple sentences holds true to them also.

NOTES

1. I would like to thank K. A. Jayaseelan, P. Dasgupta, and K. S. Yadurjan for their comments.

The following abbreviations are used in this paper:
 PF = Phonological Form; LF = Logical Form; N = nasalization; and
 EST = Extended Standard Theory.

2. Maithili is an Indo-Aryan language spoken in the northeastern part of Bihar (India) and the south-eastern part of Nepal.
3. See Hasegawa (1980) and Yadava (1983; to appear) for the arguments supporting the VP constituency in Japanese and Maithili, respectively.
4. This filter is problematic, assuming that the elements involved in a filter must be 'local'. See Chomsky and Lasnik (1977) for a discussion of this constraint on filters.
5. Like (13), this filter is also problematic for the same reason.

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Reduplication in Bantawa

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Bantawa is one of the pronominalized languages of Tibeto-Himalayan Branch belonging to Tibeto-Burman sub-family. It is widely spoken in the eastern part of Nepal. Bhojpur, Dhankutta, Panchthar, Illam, Jhapa, Morang and Sunsari are the major districts of Mechi, Koshi and Sagarmatha zones of eastern Nepal where Bantawa is spoken mostly. It is also spoken in some parts of Darjeeling district of West Bengal (India), Sikkim and Bhutan.

Reduplication is one of the most productive morphological processes in Bantawa. Broadly, this process has two major functions: grammatical and semantic. The grammatical function of reduplication is to indicate the various grammatical categories (Apte, M. L. 1968) such as number, gender, tense and mode etc. This function is not common in most of the languages. Bloomfield gives some of the examples of this type from Tagalog and Fox. The semantic function of reduplication is to show intensity, less intensity, continuity, certainty, distribution, repeated action and specification of the meaning which is expressed in the basic unit before reduplication. This is the most common function which is found in most of the languages. Bantawa has both of these functions of reduplication.

The term 'reduplication' is defined by various scholars in various ways regarding different languages. Apte, M.L. (1968) has given a detail description of reduplication process and its structure in Marathi. He writes, "The term reduplication may now be defined as either 1) the repetition of an entire or a partial phoneme sequence of a stem morpheme which, together with the stem, constitutes a word; or 2) the repetition of the initial or the first two syllables within a unit already established as a primary word, such repetition of the initial or the first two syllables being either complete or partial...." He has taken a 'word' as the basic unit for reduplication in Marathi. A morpheme is considered as a basic unit for reduplication in Bantawa. A bound or free morpheme can be repeated as a process of reduplication.

Reduplication can be both partial and complete in Bantawa. When the whole base or the first unit is fully repeated as a second unit then that is known as a complete reduplication. When a bound form of a morpheme as the part of a word is being repeated then that is considered as a partial reduplication.

Onomatopoeia and echo-formation are not included in this paper. The grammatical function of reduplication which is considered to be the specific function of the language is dealt first and the semantic function which is supposed to be the general one is discussed later in this paper.

I. Grammatical function:

a. Change of grammatical categories v. redup. (part) > N.

1. /kin/ 'to scare' /kinkin/ 'scare-crow'
2. /lak/ 'to hang' /laklak/ 'hanger' (furniture)
3. /Iim/ 'to press' /TimTim/ 'suffocation'. (esp. in sleep).
4. /kūn/ 'to hang' /k̄ ū n̄ k̄ ū n̄ r i / 'a swing'

N. redup. > adj

1. /yum/ 'Salt' /yumyum/ 'Salty',
2. /h ū k/ 'air' /hūkhūk/ 'airy'
3. /Caʔwa/ 'water' /Caʔwaʔcaʔwa / 'watery'
4. /aʔwa/ 'oil' /aʔwaʔaʔwa/ 'oily'

b. Change in number

Interrogative, demonstrative and referential pronouns are reduplicated, for dual and plural.

1. /sañ/ 'who' /sañ sañ/ 'who' (dl. or pl.)
2. /oko/ 'this' /oko oko/ these (dl. or pl.)
3. /moko/ 'that' /mokomoko/ those (dl. or pl.)
4. /kho/ 'that' /khokho/ those (dl. or pl.)

There is no distinction of dual and plural in the pronominal forms but they are marked distinctly in verbal form. The nonsingular marker /ci/ is optional in the reduplicated part.

c. Change of aspect.

Simple non-past rudup.

Non-past progressive

- | | |
|--|--|
| 1. ū n̄ k a KhaTña
ūnka khaTñaña | 'I go'
'I am going' |
| 2. ūnkaci khaTci
ūnkaci khaTciñci | 'We two (inclu.) go!
'We two (inclu.) are going' |
| 3. ūnkaca khaTca
ūnkaca khaTcañca | 'We two (exclu.) go'
'We two (exclu.) are going'. |
| 4. khanaci tūkhaTci
khanaci tūkhaTciñci | 'You two go'
'You two are going'. |

5. mokoci khaTci 'They two go'.
 mokoci khaTciñci 'They two are going'.

In the above example the verb root /khaT/ meaning 'to go' is not reduplicated but the suffixes are reduplicated in order to achieve the progressive aspect. Pronominal marker /na/ in the first person singular dual exclusive marker /ca/ and non-singular marker /ci/ are reduplicated in dual in all persons. It is to be noted that the pronominal marker /n/ is intervening before the reduplicated suffix in all dual numbers.

II. Semantic function:

- a. Nouns: Reduplication of nouns is possible except in the proper and abstract nouns and it suggests the sense of specification of meaning in general.

Examples:-

- | | | |
|----|------------------------|--------|
| 1. | lamlam | biye |
| | road road | walk |
| | Walk on the road only. | |
| 2. | kok kok | coye |
| | rice rice | eat! |
| | Eat rice only | |
| 3. | bak bak | sere |
| | pig pig | kill! |
| | kill the pigs only | |
| 4. | ca } wa } ca } wa } | kese |
| | water water | remove |
| | Remove the water only. | |

Reduplication of nouns may also suggest the sense of sequencing.

Examples:-

1. ūnka khimkhim khaTna
 I house house go
 I go house to house.
2. khana TenTen Kole
 You Village village walk
 you go (walk) village to village

3. T a n̄ T a n̄ khipTe
 head head count
 count the head to head

b. Numerals

Reduplication of numerals gives the sense of distribution

Examples:-

1. ū k T a ū k T a hase
 one one divide
 Divide one to each.
2. h ū s a T h ū s a T cane
 two two eat
 (you) eat two each.
3. ūkke wa ūkke wa mūye
 one half one half make
 Make one half of each.

c. Adjectives

Reduplication of adjective is very interesting. There can be two types of reduplications: partial and complete. The partial reduplication is meant for the intensification of the meaning and the complete reduplication suggests deintensification or less intensification (Bhaskararao 1977) of the same.

Partial reduplication > intensification.

1. lemchok 'sweet'
 lemchok chok 'very sweet'
2. suncuk 'sour'
 suncukcuk 'very sour'
3. khūkpak 'bitter'
 khūkpakpak 'very bitter'

Complete reduplication > deintensification

1. lemchok lemchok 'a little sweet'
2. suncuksuncuk 'a little sour'

- | | | |
|----|-----------------|-------------------|
| 3. | khūkpak khūkpak | 'a little bitter' |
| 4. | wacekwacek | 'a little watery' |

d. Adverbs

There can be no partial reduplication of adverbs and complete reduplication suggests intensification and specification of the meaning.

Examples:-

- | | | |
|----|-------------|------------------------|
| 1. | HaTna | 'after a while' |
| | haTna haTna | 'a little after while' |
| 2. | ODa | 'here' |
| | Oda Oda | '(particularly) here' |
| 3. | Dani | 'above' |
| | Dani Dani | 'up above, far above' |
| 4. | aTThu | 'before, early' |
| | aTThu aTThu | 'very early' |

e. Post-positions

Reduplication of postpositions shows the closeness or specification of the meaning. They also show the sequence of the action and place.

Examples:-

- | | | |
|----|--|--------------|
| 1. | busiT busiTDa | Yunse |
| | in front in front at | keep |
| | keep closely in the front. | |
| 2. | cūk cūkDa | Kharan |
| | near near at | went (I) |
| | (I) went closely near by. | |
| 3. | mosowo den den | dhumTun |
| | his of back back | followed (I) |
| | (I) followed him closely back to back. | |

f. Verbs

Verbs are reduplicated along with the particles and give the sense of constinuity.

Examples:-

1. moko cayaṅsa cayaṅsa khara
He kept on eating while going.
2. ūṅkaca cepyaṅsa cepyaṅsa banaca
We two (excl.) kept of talking while coming.
3. ūṅka minyaṅsa minyaṅsa kahTṇa.
I keep on thinking while going.

In the above examples the verb roots /ca/ /cap/ and /min/ are associated with the progressive suffix /yaṅ/ and the particle /sa/. The meaning of verb roots is 'to eat' 'to speak' and 'to think' respectively and the meaning of the suffix /yaṅ/ and the particle /sa/ suggests the sense of 'continuity and manner but they may not be able to give meaning in isolation. It is to be noted that these actions are taking place simultaneously.

Reduplication of the verb roots with the particle /si/ suggests the sense of repeated action.

1. ūṅka casicasi hoTTaṅ
I am tired of eating (repeatedly)
2. moko khapsi khapsi hoTtu
He is tired of weeping (repeatedly)
3. khana cepsicepsi tuhoTTa
You (sing) are tired of speaking (repeatedly)

In the above examples we find that two actions are taking place one after another and the second action is the result of the first one. The first repeated action is the result of reduplication.

Verbs may suggest continuity of the single action with a single verb in a sentence.

1. moko khaTkokhaT
He goes on and on.
2. moko biwobi
He walks on and on.
3. ūṅka cepṇawocepṇa
I speak on and on.

4. Oko epkoop

This (man) stands on and on.

In the above examples the intervening suffix /ko/ and /wo/ are phonetically identical to the genitive suffix but they are applied as the adjectival suffix to denote the quality of the action. The condition is /ko/ after the consonant and /wo/ after the vowel.

When the verbs are reduplicated without any particles then they suggest the sense of certainty.

Examples:-

- | | | |
|----|------------|-------------------|
| 1. | moko | TaTa |
| | He/she | comes (certainly) |
| 2. | moko | khaTkhaT |
| | He/she | goes (certainly) |
| 3. | moci | KhaTci khaTci |
| | They two | go (certainly) |
| 4. | Khana | tūbanban |
| | you (sing) | come (certainly) |

Triplication

There are certain nouns and verbs which can be repeated twice with the formative suffix at the end. We find the grammatical category also changes with intensification of the meaning in the same time. Here, this process is known as triplication in general,

Examples:-

- | | | |
|----|-------------|-----------------------|
| 1. | mūk | 'eye' |
| | mūkmūkmūkwa | 'full of tears' |
| 2. | nop | 'to touch' |
| | nopnopnopwa | 'very affectionately' |
| 3. | hūk | 'wind' 'air' |
| | hūkhūkhūkwa | 'full of air or wind' |
| 4. | rak | 'living coal' |
| | rakrakrakwa | 'burning brightly' |

- | | | |
|----|----------------|--------------------------------|
| 5. | sip | 'to close' |
| | sipsipsipwa | 'very much closed' |
| 6. | sop | 'to touch' 'to veel' (by hand) |
| | sopsopsopwa | 'blindly' |
| 7. | Ton̄ | 'to arrange' |
| | Ton̄Ton̄Ton̄wa | 'a big heap' |

This process is very much productive in Bantawa and the roots can be free and bound both. The formative suffix /wa/ is phonetically identical to the suffix suggesting the liquid element in a compound word.

NOTES

abbreviations and diacritics.

ū	unrounded high back vowel
ṇ	velar nasal consonant
V.	verb
N.	Noun
redup.	reduplicated
part.	particle
Adj.	Adjective
dl.	Dual
Pl.	Plural
excl.	exclusive
incl.	inclusive

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Problems in Dating Nepalese Metal Sculpture: Three Images of Viṣṇu

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In the absence of many inscribed and dated Nepalese metal sculptures older than the late 15th century - the published corpus until very recently contained only six examples¹ - historians of Nepalese art have of necessity had to fall back on careful stylistic analysis as the only alternative open to them in their attempts to arrive at a reliable chronology of the development of Nepalese art.

Using the technique of dating by stylistic analysis, the art historian arrives at a date for a work of art through careful comparison with whatever dated material does exist, and often with material from neighboring traditions where the stylistic chronology is felt to be relatively securely established (in the study of Nepalese art, the Indian traditions - naturally enough - are used as touchstones). The basic assumption behind the use of such a dating technique is that the art tradition being studied exhibited a relatively uniform rate of stylistic progression; changes in style, though they occurred slowly, were progressive; stylistic elements were invented or borrowed, developed, employed more and more widely throughout the tradition, and in a final phase dropped or replaced by a new fashion. In studying any image, the art historian examines general features such as proportions, stance, quality of work etc., as well as minor elements of stylistic detail such as the base, crown, jewelry and clothing. (These latter are often crucial in forming an opinion, as is attested by the drawings of jewelry² and clothing styles sometimes found illustrating art historical studies). These elements of style are then compared with equivalent elements found in dated sculpture or sculpture considered firmly dated on the basis of previous analysis, and the work of art being considered is then placed in a chronological continuum on the basis of this comparison.

Most art historians admit that intuition often plays a large part in this process, and all historians of Nepalese art caution that this system has serious shortcomings when applied to a tradition such as Nepal's where limited documentation is combined with a length of continuous artistic production of at least 1500 years.

In examining below several dated sculptures representing one theme, that of the standing four-armed Viṣṇu, we shall see just how hazardous dating by stylistic analysis alone can be, and we shall examine the problems that are sometimes presented even by Nepalese sculptures that are inscribed with a date. We shall further see how the products of the ancient and culturally complex Nepalese tradition often confound attempts at simple identification, and present the art historian with mysteries that defy easy solution.

The collection of the Los Angeles County Museum contains an attractive and intriguing gilt copper repoussé plaque of Viṣṇu in the common standing four-armed form (Figs. 1,1a)³. This handsome plaque, whose form suggests that it may have been a kośa or kavaca - a metal sheath used to cover and beautify a stone image during worship - is dated in its inscription to the (Nepal era) year 103, corresponding to A.D. 983 (see Fig. 4. and appendix, inscription no. 1). It is thus the third earliest dated example of Nepalese metalwork to come to light and the only dated example from the tenth century.⁴

This image exhibits what appears to be a peculiar melange of stylistic elements. Although the stance, proportions, face and crown are all of an early type, consistent with a tenth century or even earlier date, other elements at first glance appear to be anachronisms. Particularly surprising in an image of the tenth century are the highly ornate armlets, double bracelets and necklaces, ornate anklets and the large rosettes interrupting the bead motif of the exuberant aureole. All of these details are usually associated with later works, from the post 12th century medieval period at least. Images of the standing four-armed Viṣṇu and the thematically related Garuḍāsana Viṣṇu assigned tenth through 12th century dates in most previous studies of Nepalese art exhibit none of the features of ornamentation noted above.⁵ In such images, the necklace usually consists of a single or several bands of pearls or beads, while the armbands are often of a simple coiled band variety or a simple jewelled plaque, but never with the rows of pendant beads shown in the Los Angeles Viṣṇu plaque. Anklets are never seen, and the treatment of the aureole is generally more restrained than the work seen in this Viṣṇu, where the rosettes in particular are an unprecedented feature.

The recent publication of Mohan Prasad Khanal's work on Cāṃgu Nārāyaṇa - the most important Vaiṣṇava center in the Kathmandu valley - has added four interesting repoussé sculptures to the corpus of published dated metal sculpture of Nepal (see note 1). Since these sculptures, dating from A.D. 1050 to A.D. 1121, are thematically and technically related to the Los Angeles plaque, it is worth briefly comparing them to the plaque and noting stylistic similarities and differences. These four plaques are similar to the Los Angeles Viṣṇu in that all are repoussé and all represent Viṣṇu in his standing four-armed form; but while the Cāṃgu Nārāyaṇa plaques represent Viṣṇu flanked by Lakṣmī and Garuḍa, the Los Angeles plaque shows the god standing alone. It is interesting to note that in terms of modelling, stance and proportions, the Los Angeles plaque strikes the eye as the work of an earlier age, which of course it is, being more than 50 years earlier than the earliest Cāṃgu Nārāyaṇa figure. But although one of the plaques from Cāṃgu Nārāyaṇa, dated A.D. 1087 - about a century after the Los Angeles Viṣṇu - exhibits an aureole which approaches the exuberance of the work in the Los Angeles example, none of these later works of the same subject, in the same medium, exhibits any of the more extraordinary minor elements of jewelry treatment that we immediately notice in the Los Angeles plaque. The double necklace, double wristlets, heavy bracelets and ankle ornaments seen in the Los Angeles sculpture are conspicuously absent in these later examples.

The Los Angeles Viṣṇu, then, gives a remarkable impression of a very early prototype - the face, stance and crown all exhibit characteristics of Licchavi work - draped and bedecked with elaborate jewelry and decoration seemingly suitable to a date much later than that recorded in the inscription. The earlier elements of the sculpture could be explained by positing reliance on an earlier model, but the apparently post 12th century decorative elements discussed above can only be explained by positing an earlier appearance of such decorative elements in Nepalese sculpture than had previously been suspected.

It is not only in its several 'anachronistic' stylistic elements that the Los Angeles Viṣṇu is surprising. It also exhibits two iconographical peculiarities, one seemingly quite minor and the other more striking and puzzling.

The first - seemingly minor - iconographic peculiarity is a peculiarity only because the icon is Nepalese, for almost all pre-15th century sculptures of the four-armed Viṣṇu - whether standing or Garuḍāsana - show the god holding the cakṛa in his upper right hand and the gadā in his upper left, an arrangement which when combined with the usual Nepalese arrangement of padma and śaṅkha in the lower hands is known as Śrīdhara, while in this plaque the arrangement of attributes in the upper hands is reversed (Figs. 1, 1a)⁶.

In fact the ubiquitousness of the Śrīdhara form in pre-15th century Nepalese sculptures of Viṣṇu is one of the mysteries of Nepalese art, several times noted but difficult to explain. The predominance of this form is the more surprising since it would appear that in India, depictions showing the gadā and cakṛa in the hands opposite those in which they are shown in the standard Nepalese Śrīdhara form were quite common.⁷

Since we can assume that most Nepalese sculptors followed earlier models and certainly earlier types, and since no type other than the Śrīdhara has been attested from the period preceding the Los Angeles plaque, we are forced to assume that the donor of the plaque, Bhuvanā Jīva, must have made some specific requests regarding the disposition of gadā and cakṛa; or if the image is a copy or replacement of an earlier sculpture, as could have been the case were it a sheath, then the earlier image - perhaps Indian - also displayed these peculiarities. In this context, it is interesting to note the way - again peculiar by Nepalese standards - in which the cakṛa is held with its edge forward; although this is a stylistic rather than an iconographic peculiarity, it too lends an air of mystery and uniqueness to this remarkable sculpture.

The change in hand positions of the gadā and cakṛa is puzzling and certainly of some significance in the context of Nepalese sculpture where the Śrīdhara form predominates; but it is still a minor detail in comparison with the other much more unusual iconographic oddity displayed by the plaque; the erect phallus depicted beneath the god's dhoti.

Although ithyphallic depictions of Śiva are quite common in Nepal and perfectly understandable considering the identification of this god with the phallic emblem, this is the first time this author has ever come across an ithyphallic Viṣṇu. Certainly the most logical explanation for this unprecedented depiction is that it is perhaps one of several ways in which Nepalese sculptors have sought to unite these two popular and powerful gods in one image. Mary Slusser, in a discussion of another type of syncretic image, wrote: "The numerous surviving Harihara images attest to the syncretic outlook of the Nepalese and it is made particularly explicit by entries in the Himavatkhanda and the Nepāla-Māhātmya. These texts are studded with the Nārāyaṇeśvara concept, and the anomaly of a "Nārāyaṇa liṅga" is not even considered."⁸ Perhaps a syncretist motive can also be assigned to the common practice in Nepalese art of surmounting an image of Viṣṇu with a small liṅga at the apex of the aureole, and there may be some connection between such depictions and the unprecedented ithyphallic Viṣṇu of the plaque.⁹

It is in fact probable that this image was connected with a specific cult in the Nepal valley, whose cult myth or history might provide an explanation for the peculiarities exhibited by the sculpture. But the identity and nature of this specific cult- if it does exist - remain a mystery, and most Nepalese react with puzzlement to the suggestion of an ithyphallic Viṣṇu. Unfortunately the inscription, which might be expected to provide us with some clue as to the full identity of the god and his cult, is unusually terse in its readable opening portion - not even an opening salutation is included - while the final portion is so obliterated as to be almost entirely undecipherable. So for the moment we must content ourselves, albeit without great enthusiasm, with the general surmise that this plaque is in some way yet another attempt to combine in one form the two supreme deities of Nepalese Hinduism.

II

The next image of the Viṣṇu group has already been published several times, but perhaps merits further examination and discussion. Unfortunately this sculpture, a rather plain cast copper (?) depiction of a standing Viṣṇu in his most common Śrīdhara form, can only be examined through photographs, for its present whereabouts is unknown (Fig. 2 and 3 appendix, inscription no. 2).¹⁰ Brought into the Prince of Wales Museum in Bombay for an opinion, it was taken back after it had been photographed, and can no longer be traced.¹¹

Photographs of this sculpture were first published by Dr. Pratapaditya Pal in an important early article on dated Nepalese bronzes. Dr. Pal read the date of the inscription as 172, and referring this date to the Nepal Samvat, assigned the A.D. date 1052 to the sculpture.¹²

At least one art historian has admitted that he felt this to be a surprisingly early date: Dr. Karl Khandalavala, discussing this image in an article dealing with the chronology of Nepalese art, wrote: "without the inscription we would frankly have assigned it to the 13th century, but the date established it to be A.D. 1052."¹³

Another scholar, however, had exactly the reverse reaction. As Dr. Pal acknowledged in a note to his article, Gautamvajra Vajracarya had written expressing his view that the date of the inscription on the base of the sculpture should be referred to the Manadeva or 'Amśuvarman' era rather than to the Nepal era.¹⁴ This interpretation was recommended on the basis of an analysis of the paleography of the inscription; Mr. Vajracarya felt, as he later wrote, that 'the script is unquestionably in the Gupta character'.¹⁵ Referring the inscription and its date to the Manadeva era results in an equivalent date of A.D. 748, more than three centuries earlier than the date of A.D. 1052 resulting from reference to the Nepal era.

Dr. Pal however felt that such an early date was, as he wrote, "stylistically incompatible" and he let the date stand at A.D. 1052.¹⁶ In his article he pointed out the stylistic elements shared by this Viṣṇu and several other dated eleventh century works, including a dated stone image of Sūrya in Patan.¹⁷ These similarities are quite readily discernable, and other art historians followed his lead in assigning the date A.D. 1052 to the Viṣṇu.¹⁸

While historians of art published the sculpture as A.D. 1052, Dhanavajra Vajracarya published a reading of the inscription on the base, supplied by Gautamvajra Vajracarya, in his compendium of Licchavi inscriptions, now the most complete work on the subject. He placed the reading - also with the year read as 172 - with those of the Manadeva era; this results, as we have seen, in the Christian era date A.D. 748.¹⁹

The evident contradictions in published opinion regarding this image and the date of its inscription certainly merit further discussion, for they highlight some of the hazards and complications art historians are forced to confront when assigning dates to Nepalese sculpture, even when inscribed.

What is the date of this sculpture?

For the purposes of a discussion leading to a possible answer to this question, we will adopt here the rather artificial approach of discussing first the inscription on the base without concerning ourselves with the image itself. If we confine ourselves to an attempt to date the inscription alone on the basis of internal evidence, we must rely almost entirely on paleographic analysis in reaching a conclusion. Although there are some stylistic elements in the text of the inscription which would seem to support the earlier date, these in themselves are not conclusive.²⁰ The date cannot be verified, nor are any firmly dateable personalities, such as a reigning monarch, mentioned in the text of the inscription.²¹

As more than three hundred years separate the two eras to which the inscription has been variously referred, an analysis of the paleography is not an attempt to split hairs; we are justified in assuming that such a span of time will result in an appreciable change

in script types. Nepal has long been a country of graphomanes, and developments and changes in script types occurred relatively frequently. It is because of such rapid changes in scripts that scholars have felt able on the basis of paleographic analysis, to assign century dates to works with undated inscriptions.²²

The photographs of the inscription on the base of the Viṣṇu have been examined by several of Nepal's leading epigraphists and historians, including not only Gautamvajra Vajracarya and Dhanavajra Vajracarya but also Hemraj Shakya and Shankarman Rajbanshi of the Archeological Department of His Majesty's Government.²³ All these scholars agree that the script in which the inscription on the base of the Viṣṇu is engraved should be referred to the earlier - Manadeva - era rather than to the later Nepal Samvat era. All agree that this type of script - which can be loosely characterized as 'post-Licchavi' - has not so far been attested so late as the mid-eleventh century A.D., and that even a 'freak' survival of such an early script in so much later a period is so unlikely that the possibility can for all intents and purposes be discounted.²⁴

So that the reader make his or her own judgement, we present here photographs of the inscriptions on the Los Angeles Viṣṇu plaque (Fig. 4; the part of the inscription visible corresponds to line 1 of inscription no. 1 in the appendix) and the inscription found on the base of the controversial cast Viṣṇu (Fig. 5). It is readily apparent that the script of Fig. 5 is of an earlier type than that of Fig. 4. But if we were to refer the inscription of the cast Viṣṇu (Fig. 5) to the Nepal Samvat, it would then be nearly 70 years later than that of the Los Angeles Viṣṇu plaque. The paleographic evidence would seem to make this highly unlikely.

From paleographic analysis, then, it seems relatively certain that the inscription should be referred to the Manadeva era, resulting in an equivalent date of A.D. 748.

That this does not automatically imply that the sculpture of Viṣṇu is eighth century was recognized by Gautamvajra Vajracarya when he wrote: "If, indeed, this is a bronze of the eleventh century, then one must assume that the statue was reworked in the later period with the inscribed base left intact."²⁵

Mr. Vajracarya's suggestion is an attempt to take account of stylistic characteristics which seem to suggest an 11th century date for the sculpture while at the same time satisfying his own certainty, based on years of experience with Nepalese scripts and inscriptions, that the inscription is eighth century.

Yet this solution, though theoretically possible, seems implausible; we certainly have no previous documented examples of a Nepalese religious icon of any kind being reworked to satisfy the aesthetic tastes of a generation succeeding that of its manufacture. The ritual difficulties

involved in reworking a consecrated image would mitigate against this possibility, while the aesthetic motivation we would have to impute to such reworking seems out of character with what we know of Nepalese religious attitudes.

There are of course other possibilities of a similar nature which would explain the discrepancy between the paleography of the inscription and the style of the sculpture. Perhaps the image is later and was in some way affixed to an earlier base.²⁶ An inspection of a rear-view photograph (Fig. 3) of the Viṣṇu shows no indication of any joint in the metal although stress cracks in the upper ankles are visible. Photographs can of course be misleading, and as G. Vajracarya points out, an inspection of the sculpture itself is still very much to be desired.²⁷

Another possibility - that the sculpture is a replacement, inscription and all, of a damaged original - has in its favor the fact that such replacement has been attested several times in firmly documented examples.²⁸ In the cases where we know that this has been done, however, the replacement is self-advertised in an inscription mentioning not only the original donation but also the circumstances of the replacement. The script of the replacement is always contemporary with the replacement; no attempt is made to copy the earlier script style. This type of 'admitted' replacement causes no problems for art historians; in fact, in one case where we have both the original and replacement, we are treated to a fascinating glimpse of the stylistic changes wrought by a later artist in copying an earlier original.²⁹

But what are the chances that an inscribed icon is an unadvertised replacement, inscription and all, of an earlier original? This is a disturbing question, for if we decide that there is a possibility that such replacements could have occurred, we automatically cast in doubt the veracity of any dated work of Nepalese art, including of course every inscribed image presented here. This would further cast in doubt the whole system of assigning dates to Nepalese works, for it is our precious stock of inscribed and dated sculptures and paintings that forms the bedrock of all approaches to dating.

If this Viṣṇu, for example, is such an unadvertised replacement, we would have to assume that the donor of the replacement, while specifying that the original inscription be copied, made no provision for an addendum mentioning himself. This certainly seems possible, for as we know the vast majority of donors chose to remain anonymous.

In the case of this Viṣṇu, we would have to further assume that the inscription was copied letter for letter in the original script while the sculpture itself was perhaps changed in the reproduction to accord with later - in this case 11th century - taste.

This possibility, while theoretically admissible, is unlikely. The original inscription, if copied more than 300 years later, would

have been nearly illegible both to the engraver who attempted to execute the inscription and to almost anyone among his contemporaries who tried to read it. To engrave a faithful copy of an unfamiliar script is a difficult skill which would seem to serve no useful purpose other than forgery, which we can assume was not a practice in early medieval Nepal. Furthermore, an unfaithful, poorly executed copy of an earlier inscription by an illiterate engraver would catch the eye of the modern scholar experienced in early scripts, and this inscription does not exhibit the mistakes we would expect in such a copy.³⁰

After all this long-windedness, we come to the final possibility regarding this Viṣṇu and its inscription. It is of course the simplest; both inscription and image are a single work of A.D. 748. This solution, though by no means certain, is the one I will tentatively adopt here.

In accepting such a solution we must of course address the objection raised by Dr. Pal that this date is incompatible with the style of the sculpture.³¹

While we have seen that this image of Visnu is in fact, as Dr. Pal convincingly showed in his original discussion of this sculpture, stylistically compatible with several other dated sculptures from the 11th century, it is considerably more difficult to demonstrate that it is stylistically incompatible with sculpture from the eighth century. This is so partially because we have not a single attested dated metal sculpture from this century, nor do we have any from the later seventh or the ninth centuries, while the repoussé Visnu plaque discussed earlier is our first attested example from the tenth. When speaking of the style of Nepalese metal sculpture between the dates A.D. 607 and A.D. 983 - nearly four centuries - we are essentially working in a void. Nor do we find any dated stone sculpture from the eighth century to help us in our search for an eighth century style, if in fact such a discrete style actually exists.³²

When we allow ourselves to view the Viṣṇu as a genuine eighth century work, we find that in fact the stylistic objections to such an early date are relatively slight. In suggesting such a great age for this sculpture, I find myself confronted with three anomalies in the work itself: 1) the relative slimness of the figure, 2) the lack of refinement in the over all workmanship and 3) the simple and rather crude three-leafed crown. The latter two, I feel, can be attributed to lack of skill on the part of the sculptor, while the former can be understood as a characteristic of metal sculpture in the round as opposed to the high relief usually employed in stone treatments of this and related subjects.

Aside from the idiosyncracies mentioned above, the Viṣṇu exhibits many stylistic characteristics consonant with an early date, among which we might mention the treatment of the clothing, jewelry and emblems, the simple square base, the bead and flame nimbus and the overall simplicity of the sculpture. In these elements at least this Viṣṇu certainly seems

to display earlier characteristics than those seen in the tenth century plaque discussed above.³³

I feel then that we can tentatively consider an eighth century date for this Viṣṇu. Absolute confirmation would have to come from further evidence such as other dated metal sculpture from the same period;³⁴ certainly an examination of the sculpture itself is still very much a desideratum. But in this case, I feel the simplest and most likely solution to the contradictions presented by this image lies in referring both inscription and sculpture to the year A.D. 748.

Although by no means a masterpiece, this sculpture remains an interesting document of Nepalese art history, for it provides a tentative point of reference where none existed before. The void of four centuries has hardly been filled, but at least one metal sculpture exists which may prove of help to art historians groping through the dark.

III

The last of the sculptures in the Viṣṇu group has already been published several times and is presented here again merely because, unlike the two other sculptures discussed in this article, it bears a date much later than one would expect from its appearance.

This Viṣṇu, flanked on either side by his vehicle Garuḍa and his consort Lakṣmī, is inscribed with the date 818 (Fig. 6: appendix, inscription no. 3).³⁵ Although there are peculiarities in the inscription (Fig. 7). - the era is identified as 'śrī 3 Samvat' and the inscription is written mostly in Devanagari rather than in the Newari script one would expect in this period - it is quite certain that the samvat refers to the Nepal era, resulting in the equivalent date A.D. 1698.³⁶

Considering its appearance, this is a surprisingly late date, and elicited from Sadashiv Gorakshkar the admission that, "but for its date, our bronze could also have been assigned to the thirteenth-fourteenth century."³⁷

When we consider that, as we have seen earlier, another prominent art historian, Karl Khandalavala, would have assigned the cast Viṣṇu discussed at length above to the same general period were it not for an inscription, and that this cast Viṣṇu may very well be eighth century, we can see how difficult is the task of assigning dates to Nepalese metal figures.³⁸ These two images, judged contemporary in appearance by two authorities, differ in age by at least six hundred odd years in conservative estimation, and in fact are probably separated in time by nearly a millenium.

The difficulty of assigning dates to Nepalese metal sculpture, so clearly demonstrated by these two examples, may be partially understood as a natural result of the great age and tenacious continuity of the

Nepalese art tradition. As Mary Slusser has written, we have every reason to believe that in the case of Viṣṇu, an iconographic and stylistic type was established very early and adhered to faithfully throughout centuries of artistic endeavor.³⁹ This is not only true of Vaiṣṇava themes, of course, for other themes, Śaivite and Buddhist as well, have been treated with much the same conservatism by Nepalese artists over the more than 1500 years that comprise the span of documented Nepalese art history.

As has been observed many times before, this tenacity of stylistic characteristics makes dating sculpture by stylistic analysis alone extremely difficult and hazardous. It is in fact possible, nay probable, that the basic assumption on which stylistic analysis rests - that styles in Nepalese art changed gradually through time - is faulty. Karl Khandalavala wrote while discussing the metalworking tradition in Kashmir: "It should be remembered that more than one atelier must in all probability have been functioning at the same time according to its (sic) own guild formulas and hence the stylistic differences which we today are often apt to regard as indicating different periods of production may, in fact, not warrant such a conclusion."⁴⁰ The model of an Asian art tradition presented in these words seems fitting indeed in reference to Nepal. There is little doubt that there were several prosperous and highly regarded ateliers thriving at any given time in the tiny area of the Nepal valley. Some sculptors were willing to experiment with unprecedented forms, while others were surely reactionaries, enamored of the work of their forefathers and scornful of experimentation. These latter would never have had far to go to find a suitable model in a center of culture that can easily be traversed in a single day. The traditional sculptors and painters of modern Nepal certainly fit this model. While some eschew the use of a model and search continuously for new idioms to express ancient subjects, others never tire of discovering and copying the work of masters long dead, whether it be by visits to shrines or the more modern method of poring through art books.⁴¹

This confusion of schools with periods is unavoidable in a tradition that is as scantily documented as Nepal's. But as the study of Nepalese art begins to come of age, it is to be hoped that further documentary evidence will come to light which will help art historians to assign dates on the basis of a more solid body of known facts.⁴² We may even eventually see a day when distinct schools can be identified and distinguished. Until this is possible art historians will be forced to date by extrapolating from the evidence at hand, analysing and comparing elements of style. But remembering that images separated by centuries can often appear contemporaneous, the wise art historian will perhaps refrain from such pinpoint phrases as the "first half" or the "second half" of any given century when assigning a date to an uninscribed sculpture. Certainly to assign dates within 50 years when there are either no or precious few dated sculptures from the centuries preceeding or following the suggested date amounts to little more than whistling in the dark. It is perhaps more worthwhile to search for the bits of hard evidence - documentary or technical - that will shed some light on the gloom which envelops Nepal's ancient and noble art traditions.

Appendix: Inscriptions, translations and comments.

I wish to acknowledge here my great debt to Dhanavajra Vajracarya, one of Nepal's foremost historians and a scholar of incomparable learning, who gave much of his valuable time to help the author read the inscriptions shown below. Without his help my understanding of the earlier inscriptions would not have been possible. In transliterations given below, illegible characters are indicated by 'x', uncountable illegible characters are indicated by '...', and supplied readings are contained in parentheses.

Inscription no. 1. Los Angeles Viṣṇu plaque (see Fig. 4)

Transliteration:

1. trayasamadhike vatsarake śate, tapasaḥ dvādaśī śukla tithau vidhau
2. pravara vaidya kulakama x x x bhuvana jīva iti jena khyātaya...
3. vara suvarṇṇajana
4. ...ja nārāyanasattva...

Translation:

In the year 103, on Monday, the 12th of the bright half of Māgha, Bhuvana jīva of the most excellent Vaidya family, for his glory (?)...

Comments:

The date corresponds to approximately January-February, A.D. 983. The readable part of the inscription, which is inscribed just inside the aureole around the body of the god, is extremely brief and terse. Lines three and four of the inscription are found on a sheet of copper bent under the base of the plaque, and the characters are extremely effaced and difficult to read. Even the name 'nārāyana' which occurs in line 4 is at best an approximate or possible reading, and cannot really be taken as proof positive that this is the name intended for the deity, particularly since the name as read is misspelled (it should be 'Nārāyaṇa'); lines three and four are included here with some diffidence as the readings are so unsure.

Inscription no. 2. cast standing Viṣṇu (see Fig. 5)

1. saṃvat 172 āṣāḍha śukla divā dvādaśyāṅkāḍulakagrāme śrī hetu jīva..
pati śrī vastramitra ...
2. śrī devasvāmī ... śrī dharamittra śrī dhuvamittra sri somamitra
śrī ... mittra śrī jayadeva
3. śrī nārāyaṇa prabhṛtibhiḥ svapuṇyābhivṛddhaye śrī bhagavadnārāyaṇa
devaḥ (pra)ti (ṣṭhā)pi (taḥ)

Translation:

In the year 172, on the twelfth of the bright half of Āṣāḍha, śrī Hetujīva, śrī Vastramitra, śrī Devasvāmi, śrī Dharamittra, śrī Dhuvamittra, śrī Somamitra, śrī ... mittra, śrī Jayadeva, śrī Nārāyaṇa, etc., of Kādulakagrāma (village, town), for the increase of their own merit, consecrated (this image of) Lord Nārāyaṇa.

Comments:

The date, if referred to the Manadeva or 'Amśuvarman' era corresponds to approximately July, A.D. 748; if referred to the Nepal era, it corresponds to approximately July, A.D. 1052. Kādulakagrāma may perhaps be the modern Satungal, an ancient settlement situated near the road which leads out of Kathmandu towards Thankot. The reading of the inscription differs in a few minor respects from the reading given in Dhanavajra Vajracarya's Licchavikālakā Abhilekha, inscription 171, pp. 590-591, reflecting Mr. Vajracarya's own corrections upon close examination of the photographs.

Inscription no. 3. Lakṣmī-Viṣṇu-Garuḍa triptych (see Fig. 7)

Transliteration:

1. śrī 3 samvat 818 āśvīna śukla 10 tasmin divasa śrī 3 lakṣmī
nārāyaṇa garud murtti
2. nayaṇata narasimha bhaṭṭana kārīna śubha

Translation:

In the year śrī 3 samvat 818, on the tenth of the bright half of Āśvīna; on this day (this) image of śrī 3 Lakṣmī Nārāyaṇa Garuḍa was made by (for) Narasimha Bhaṭṭa of Nata. Good fortune.

Comments:

The date corresponds to September-October, A.D. 1698. The use of the phrase 'śrī 3 samvat' is unusual; it may perhaps refer to the connection of this era with Paśupatinātha mentioned in the so-called Kaisar vaṃsāvalī, or VK.⁴³ The Neta tole area of Kathmandu is still occupied by families of Bhaṭṭa Brahmins who trace their lineage from Lambakārṇa Bhaṭṭa, according to tradition one of the gurus and advisors of the 17th-century Kathmandu king Pratāpa Malla. Perhaps the Narasimha of this inscription is a relative. The use of a mixed Devanāgarī-Newari script for the inscription is also unusual, although Pratāpa Malla himself - a confirmed graphomane - occasionally set up inscriptions in Devanāgarī rather than the Newari script normal for the time.



Fig. 1. Standing Viṣṇu (?), gilt copper repoussé, A.D. 983, H. 47 cm.,
The Los Angeles County Museum of Art (Gift of the Ahmanson
Foundation)



Fig. 1a. Standing Viṣṇu(?), gilt copper repousse, A.D. 983;
detail of Fig. 1



Fig. 2. Viṣṇu, cast copper (?) A.D. 748 (?), approximately 30 cm.
present whereabouts unknown. Photograph Prince of Wales
Museum of Western India, Bombay



Fig. 3. Detail of Fig. 2, rear view.

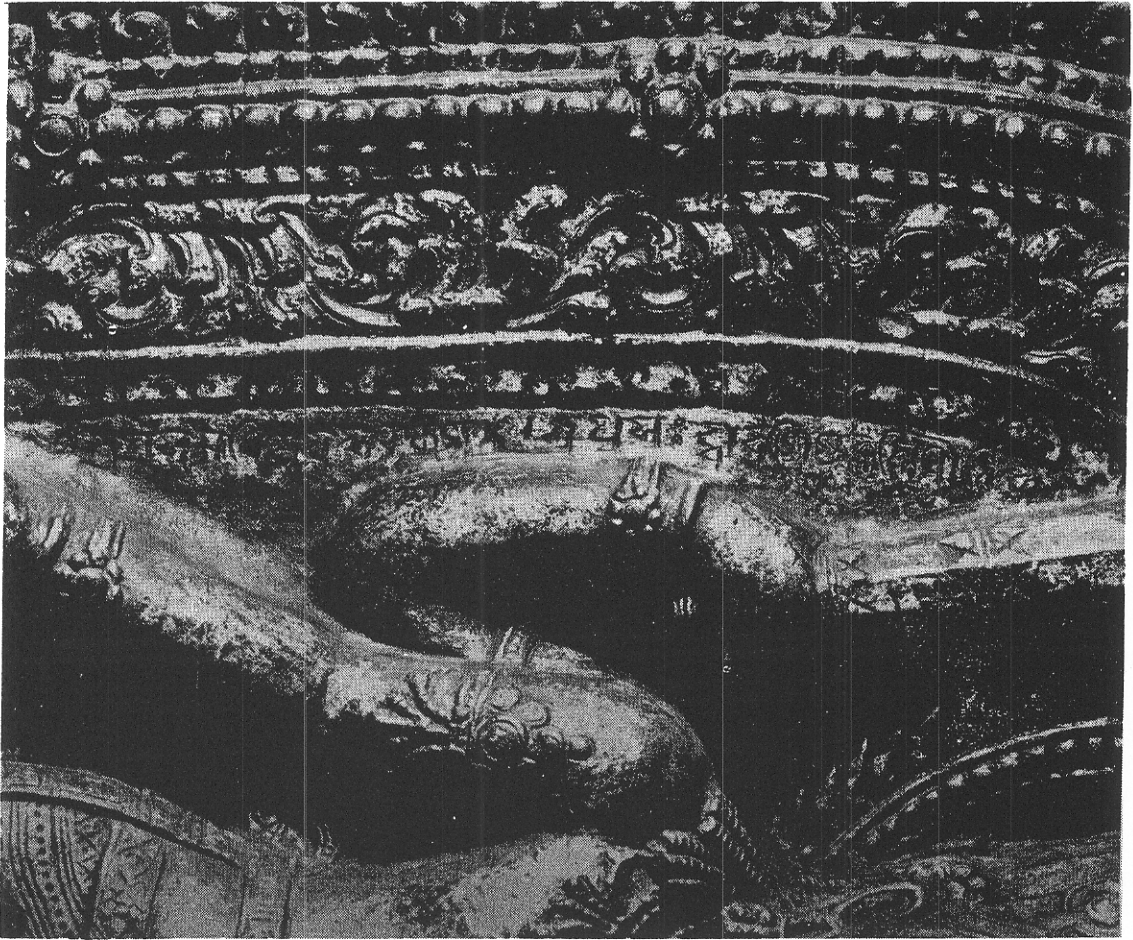


Fig. 4. Detail of Fig. 1, right side of inscription (corresponds to appendix, line 1, inscription no. 1)



Fig. 5. Detail of Fig. 2, inscription: a) right side of base; b) front of base; c) left side of base.



Fig. 6. Lakṣmī-Viṣṇu-Garuḍa triptych, gilt copper, A.D. 1698, H. 22.5 cm., Prince of Wales Museum of Western India, Bombay. Photograph American Institute of Indian Studies, Varanasi.

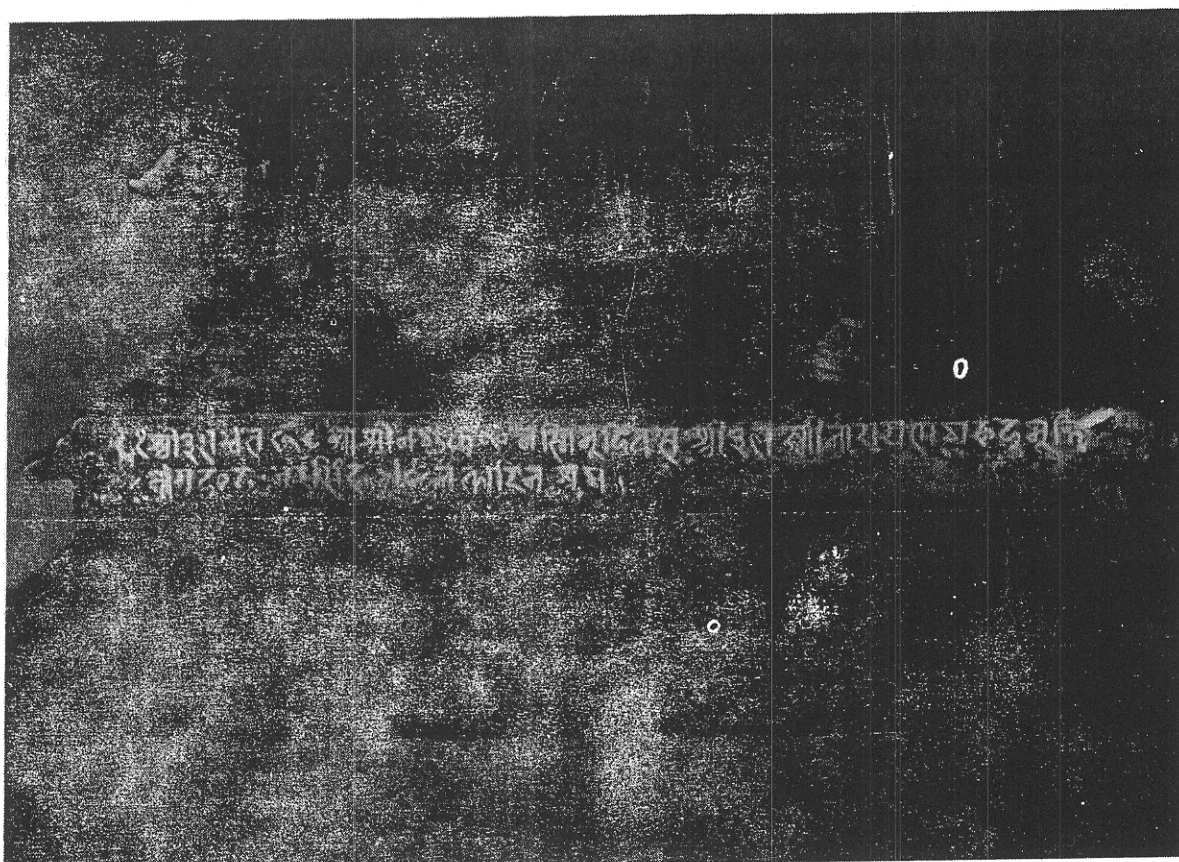


Fig. 7. Detail of Fig. 6; inscription on rear of base. Photograph Prince of Wales Museum of Western India, Bombay.

NOTES

1. Ulrich von Schroeder, Indo-Tibetan Bronzes (Hong Kong: Visual Dharma Publications, 1981), fig. 74E: Buddha Śākyamuni, A.D. 591, p. 305; fig. 83C: Viṣṇu, A.D. 1052, p. 322; fig. 83D: Viṣṇu Garuḍāsana, A.D. 1003 (sic - should be A.D. 1004), p. 323; fig. 83F: Caturmukha Liṅgam, A.D. 1045, p. 323; fig. 85F: Vasudhārā, A.D. 1081 (sic - should be A.D. 1082), p. 327; fig. 98B: Vasudhārā; A.D. 1466 (sic - perhaps should be A.D. 1467), p. 364. All of these dated sculptures had previously been published by other historians of Nepalese art. Other inscribed but undated images have been assigned dates on the basis of paleographic analysis. Recently, Mohan Prasad Khanal in Cāngu Nārāyaṇakā Aitihāsik Sāmagrī (Historical Materials of Cāngu Nārāyaṇa) (Katmandu: Centre for Nepal and Asian Studies, V.S. 2040, A.D. 1983) has published photographs of Aṃśuvarman's gold kavaca of Garuḍāsana Nārāyaṇa of A.D. 607 (plates 10 and 11) and the following pre-16th century inscribed and dated material: the cast base of a Viṣṇu triptych with an attendant figure, A.D. 1038 (plate 29), a Viṣṇu-Lakṣmī-Garuḍa triptych, repoussé, A.D. 1050 (plate 30), plus three other repoussé treatments of the same subject dated A.D. 1087 (plate 31), A.D. 1106 (plate 32), A.D. 1121 (plate 33); and an interesting cast memorial 'portrait' sculpture of Yakṣa malla, A.D. 1482 (plate 34).
2. see Von Schroeder, Indo-Tibetan Bronzes, pp. 296-297, pp. 300-301, pp. 334-335, etc.. In a succinct statement of the assumption underlying dating by stylistic analysis, von Schroeder remarks, "Stylistic changes come about through a slow process of gradual adaptation to the modified interpretation of how deities should be depicted". p. 340.
3. Los Angeles Country Museum of Art no. M. 80.187. I wish to acknowledge here the very kind and generous help extended to me by Dr. Pratapaditya Pal, not only in providing me with photographs and materials, but in his comments and encouragement as well. I deeply appreciate the interest he has shown in the work of a younger scholar.
4. Mary Shepherd Slusser, On the Antiquity of Nepalese Metalcraft, Archives of Asian Art, vol. 29 (1975-1976), fig. 5. a cast standing Buddha in the Cleveland Museum is, at A.D. 591, the oldest dated Nepalese metal sculpture, while Khanal, Cāngu Nārāyaṇakā Aitihāsik Sāmagrī, figs. 10 and 11, the Cāngu Nārāyaṇa kavaca of A.D. 607 is the second oldest and the oldest dated work in repoussé.
5. for examples, compare with Pratapaditya Pal, The Arts of Nepal: Part I, Sculpture (Leiden: E.J. Brill, 1974) figs. 30, 110, 111, 114 (a Viśvarūpa), 116, 117; and Pratapaditya Pal, Vaiṣṇava Iconology in Nepal (Calcutta: The Asiatic Society, 1970) figs. 30, 31, 42 and von Schroeder, Indo-Tibetan Bronzes, figs. 80D, 83A.

6. All 24 mathematically possible dispositions of Viṣṇu's four main emblems in his four hands were recognized as forms of the god - the so-called caturviṃśatimūrti- and are linked to 24 names first mentioned in the Mahābhārata and later in iconographic citations in a variety of texts. The earliest of these latter, in the Agni Purāṇa, lists the variation seen in the Los Angeles plaque as Trivikrama, while the later Padma Purāṇa mentions the name Nārāyaṇa, this latter name being the preferred name of Viṣṇu for most Newars, among whom the name Viṣṇu is at best rather literary and the term Śrīdhara, the technical name of the common Nepalese form, essentially unknown. Several other lists of forms of Viṣṇu do not even mention the variation encountered in the Los Angeles plaque, which, though unusual in Nepalese sculptural depictions, is relatively common in Indian sculpture. The disagreement among the various texts is an indication of the relative unimportance of the differences in hand-emblem variations, and the lists seem to be nothing more than examples of the oft-noted Indian love of codification and list-making. It is worth noting here that the predominance of the Śrīdhara form in Nepal is applicable only to earlier sculpture, for in painting and later sculpture other variations are often encountered. For discussions of the caturviṃśatimūrti see Nanditha Krishna, The Art and Iconography of Visnu-Narayana (Bombay: Taraporevala, 1980) pp. 86-87, and Jitendra Nath Banerjea, The Development of Hindu Iconography (Calcutta: Munshiram Manoharlal, 1974) p. 388: Banerjea dates the development of the caturviṃśatimūrti to the Gupta period or somewhat before.
7. for a few examples, see Krishna, The Art and Iconography of Visnu-Narayana figs. 20, 21 and 25; and Frederick M. Asher, The Art of Eastern India, 300-800 (Delhi: Oxford University Press, 1980) plates 132, 133, 158, 197, etc.
8. Mary Shepherd Slusser and Gautamvajra Vajracarya, Some Nepalese Stone Sculptures: A Reappraisal within their Cultural and Historical Context, Artibus Asiae 35 (1/2) (1973) p. 116.
9. Pal, Vaisnava Iconology in Nepal, fig. 102, p. 127 Dr. Pal explains the surmounted linga as a sign of the supremacy of Śaivism in Nepal; this is the explanation of many Nepalese as well. Jitendra Nath Banerjea, The Development of Hindu Iconography, p. 546, contains the following tantalizing sentence: "A medieval sculpture from Bihar (now in the collection of the Indian Museum) does not contain all these elaborate features (elements of jewelry and decoration and attendant figures - I.A.), but the right and left parts of the combined image stand for Hara and Hari and the Hara aspect is emphasised by the ūrdhvaliṅga sign not always present in such images." I have unfortunately not been able to see this sculpture. Slusser and Vajracarya, "Some Nepalese Stone Sculptures: A Reappraisal within their Cultural and Historical Context," fig. 7, illustrates a Harihara image, one of several in Nepal, where the cakṛa is held in the left hand, perfectly normal since in Harihara images the left side is always assigned to Viṣṇu. Perhaps the Los

Angeles Viṣṇu was made to cover a Harihara image, but with the intention to display at the time of its use in worship the predominance of Viṣṇu - in which case the gadā in the right hand would have covered Hara-Śiva's trident. The ūrdhvaliṅga would then have been included in the kavaca to remind the viewer of the icon's relation with the composite form. But this is of course only speculation of the type which historians of Nepalese art must perforce indulge in from time to time.

10. I would like to express my thanks to Sadashiv Gorakshkar of the Prince of Wales Museum, Bombay, for kindly furnishing me with photographs of this sculpture and its inscription.
11. Karl Khandalavala, *The Chronology of the Arts of Nepal and Kashmir*, *Lalit Kalā* no. 19 (1979) p. 34
12. Pratapaditya Pal, Three Dated Nepali Bronzes and their Stylistic Significance, *Archives of Asian Art*, vol. 25 (1971-1972), pp. 60-61, figs. 5 and 6.
13. Khandalavala, *The Chronology of the Arts of Nepal and Kashmir*, p.34
14. Pal, Three Dated Nepali Bronzes and their Stylistic Significance, note 10, p. 66.
15. Gautamvajra Vajracarya, personal communication, letter to author dated Feb. 23, 1982.
16. Pal, Three Dated Nepali Bronzes and their Stylistic Significance, note 10, p. 66.
17. *ibid.* pp. 61, fig. 3.
18. von Schroeder, *Indo-Tibetan Bronzes*, fig. 83c, p. 322; Mary Shepherd Slusser, *Nepal Mandala* (Princeton: Princeton University Press, 1982) vol. 1 Appendix IV-1, no. 171, where the date is listed as (N.S.?) 172, A.D. 1052 ?; the sculpture is not illustrated.
19. Dhanavajra Vajracarya, *Licchavikālakā Abhilekha* (Licchavi Inscriptions) (Kathmandu: Institute of Nepal and Asian Studies, Tribhuvan University, 1973), inscription no. 171, pp. 590-591. Mohan Prasad Khanal also agrees with Gautamvajra and Dhanavajra Vajracarya: see Mohan Prasad Khanal, *Cāṅguiko Nepali Mūrtikalā*, *Contributions to Nepalese Studies*, 8 (2) (June 1981) pp. 172-173.
20. Dhanavajra Vajracarya, in a personal communication, mentioned that, among other elements of style, the names encountered in this inscription are typical of Licchavi period epigraphy and are less frequently found in later documents.
21. As is to be expected in an early inscription, the day of the week - necessary for verification - is not mentioned.

22. for examples, see Pal, The Arts of Nepal: Part I, Sculpture, figs. 11, p. 26 and fig. 26, p. 32; and Slusser, On the Antiquity of Nepalese Metalcraft, fig. 1, p. 81. There are numerous works on the paleography of Nepal; two important publications are: Shankar Man Rajbanshi, The Evolution of Devanagari Script, Kailash 2 (1 and 2) (1974) pp. 23-120 and Hemraj Shakya, Nepāla Lipi Prakāśa (Kathmandu, Royal Nepal Academy, V.S. 2030 - A.D. 1973). See also Slusser, Nepal Mandala, pp. 394-395 for a concise discussion of Nepalese scripts.
23. I am grateful to all these scholars for the time they have taken to examine the photographs on my behalf.
24. It is difficult, if not impossible, to classify and delimit script types exactly. Thus, Hemraj Shakya, Nepāla Lipi Prakāśa, p. 5, records the limit of the 'post-Licchavi' or 'later Licchavi' script as the 12th century of the Vikrama era (approximately mid-11th century A.D.). The example he cites from so late a period is considerably different from the script on the base of the Viṣṇu sculpture discussed here, and in a personal communication he has expressed his certainty that the Viṣṇu inscription could not be from so late a period. Rajbanshi, The Evolution of Devanagari Script, p. 25, places the end of the Licchavi scripts at the end of the ninth century of the Vikrama era, or approximately mid-ninth century A.D.
25. G. Vajracarya, personal communication in a letter dated Feb. 23, 1982.
26. This possibility was raised in relation to the standing Buddha of A.D. 591 in the Cleveland Museum; see Slusser, On the Antiquity of Nepalese Metalcraft, note 12, p. 94.
27. G. Vajracarya, in a personal communication in a letter dated Feb. 23, 1982, wrote: "I have to refrain from making any conclusion before examining the bronze closely." Unfortunately, unless the bronze turns up at some time in the future, no art historian will have the opportunity to do so.
28. The Cāṃgu Nārāyaṇa gold kavaca of Aṃśuvarman is a replacement: see Slusser, On the Antiquity of Nepalese Metalcraft, pp. 84-93 and Khanal, Cāṃgu Nārāyanakā Aitihāsik Sāmagrī, figs. 10 and 11.
29. Pratapaditya Pal, The Arts of Nepal: Part II, Painting (Leiden/Koln: E.J. Brill, 1978) figs. 7 and 8, pp. 22-23: in this example - paintings recording the donations given by the 15th century Indian Buddhist pandit Vanaratna - both part of the original, dated ca. A.D. 1469, and a replacement of A.D. 1842, are extant.
30. This has been confirmed by Dhanvajra Vajracarya in a personal communication.

31. Pal, *Three Dated Nepali Bronzes and their Stylistic Significance*, note 10, p. 66.

32. Pal, *The Arts of Nepal: Part I, Sculpture* contains the following stone sculpture with dated inscriptions relevant to this article:

fig. 1, Viṣṇu Vikrānta, A.D. 467

fig. 2, Viṣṇu Vikrānta, A.D. 467 (?)

fig. 8, Avalokiteśvara, ca. A.D. 550 (inscription is undated but mentions reigning king)

fig. 9, Umāmaheśvara, A.D. 573

fig. 27, Sūrya, A.D. 987

fig. 28, Sūrya, A.D. 1083

fig. 34, Sūrya, A.D. 1159

fig. 35, Sūrya, A.D. 1349

fig. 36, Jhañkeśvarī, A.D. 1407

fig. 38, Umāmaheśvara, A.D. 1414

Slusser and Vajracarya, in *Some Nepalese Stone Sculptures: A Reappraisal within their Cultural and Historical Context*, pp. 79-138, convincingly date two Vaiṣṇava sculptures to the mid-seventh century on the basis of historical documentation (fig. 4, fig. 19); Slusser, *Nepal Mandala*, vol. 2, fig. 474 illustrates a Mañjunātha of A.D. 920 which had been previously published but never accurately dated; fig. 427 illustrates a Gaṇeśa of A.D. 1438.

It is interesting to note that between the dates of A.D. 607 and A.D. 1004 which form the limits of the gap in dates of previously published pre-12th century dated metal sculpture, inscribed and dated stone sculptures provide us with only two examples, both tenth century, for comparison, although there are several other stone sculptures from this period with undated inscriptions which can be approximately placed by paleographic analysis.

33. It is indeed the surprising appearance of the Los Angeles Viṣṇu plaque which makes an eighth century date for the cast Viṣṇu seem less improbable. Art historians are unavoidably influenced by the earliest dated material at hand, and when this Viṣṇu was first published by Dr. Pal, the earliest known dated example of Nepalese metalwork was a repoussé Garuḍāsana Viṣṇu presented at the same time: see Pal, *Three Dated Nepali Bronzes and their Stylistic Significance*, fig. 1 and 2, and the discussion, pp. 58-59, of the history of scholarly opinion regarding the possible antiquity of metal sculpture in Nepal.

34. Khanal, *Cāṅguiko Nepali Mūrtikalā*, fig. 7 and p. 139, presents what appears to be a repoussé roundel depicting Viṣṇu from the Cāṅgu Nārāyaṇa temple treasury, which is in many respects remarkably similar to this Viṣṇu. The sculpture presented by Khanal, which is not inscribed, is dated by the author to the fourth century A.D., which would place it in proto-historical times and seems somewhat ambitious a date; but as the material presented in this article clearly shows, the capacity of Nepalese art to surprise seems practically limitless.

35. first published in Sadashiv Gorakshkar, Two Nepali Bronzes in the Prince of Wales Museum, Bulletin of the Prince of Wales Museum of Western India, no. 11 (1971), figs. 29 and 30, pp. 26-32. Again published in Pal, The Arts of Nepal: Part I, Sculpture, fig. 48.
36. For a detailed analysis see appendix, inscription no. 3.
37. Gorakshkar, Two Nepali Bronzes in the Prince of Wales Museum, P.32.
38. see note 13 above.
39. Slusser, On the Antiquity of Nepalese Metalcraft, p. 87: writing of Cāṃgu Nārāyaṇa, Slusser remarks, "It seems that the enshrined icon is the prototype of all subsequent Nepalese works on the Garudāsana theme."
40. Khandalavala, The Chronology of the Arts of Nepal and Kashmir, p. 43. In his article, Mr. Khandalavala combines this valuable insight into South Asian art history with occasionally minute adjustments to dating assignments suggested by Dr. Pal in several of his publications. Often these adjustments concern sculpture dated to periods with no documentary evidence available whatsoever.
41. Ian Alsop and Jill Charlton, Image Casting in Oku Bahal, Contributions to Nepalese Studies 1 (1) (December 1973) pp. 22-50 discusses the preferred styles of a few modern traditional sculptors.
42. In a forthcoming article the present author will present further documentary evidence concerning Nepalese metal sculpture from the 12th to the 15th centuries. See Alsop, Five Dated Nepalese Sculptures, Artibus Asiae (2/3) 1984. Forthcoming.
43. Dilli Raman Regmi, Medieval Nepal: Part III (Calcutta: Firma K.L. Mukhopadhyay, 1966) p. 158, VK, folio 1.

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*Making a Living in the Nepal Himalayas: The Case of the Thakalis of
Mustang District*

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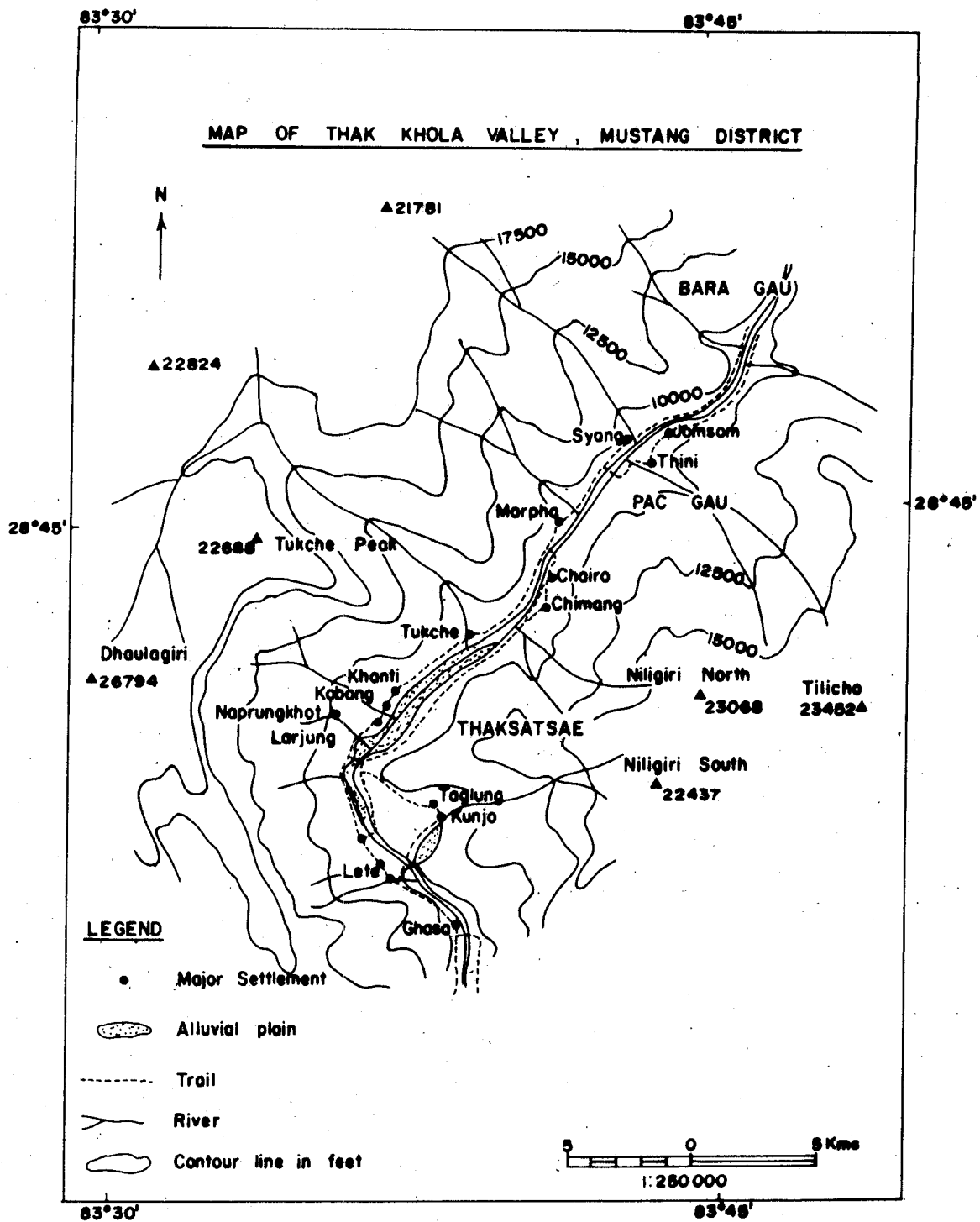
In Nepal three decades of planned development has resulted in improvements in basic infrastructure, but due to a high population growth rate and poor performance in the agricultural sector, the real GDP per capita has remained low. Nepal, formerly a major rice-exporting country, has now begun to import foodgrains. The forests are being depleted at an alarming rate, leading to serious environmental deterioration. One of Nepal's most eminent scientists and planners has observed that "the aftermath of a quarter century of development efforts has been one of increasing poverty" (Gurung 1983:1).

The picture of the average hill peasant is an appalling one. Families generally do not produce enough foodgrains to meet their requirements, and consequently one or more members work as labourers in the south during winter to make cash for buying foodgrains and other essentials. Forest resources are fast disappearing, and women spend several hours a day collecting firewood and fetching water. Villages have no electricity, no water supply system, and if any, little access to health care facilities. While there is often a primary school in the village panchayat, the enrollment is poor, especially among girls. The poorest villagers cannot make a living and therefore emigrate to the Terai.

The present article analyses how the Thakalis of Thak Khola valley, Mustang District are making a living.¹ It examines the subsistence economy, the need for cash, and sources of non-agricultural income. It is shown that the Thakalis do not fit the picture of the average hill peasant. Most enjoy a relatively high standard of living and only few households have major problems making a living. The basic infrastructure has improved much in recent years (e.g., most villages have electricity and potable water supply systems) and school enrollment is very high. The various factors accounting for this situation are analysed, and consideration given to the design and implementation of development programmes in Thak Khola.

THE THAK KHOLA VALLEY

The Thak Khola valley is situated in the southern part of Mustang District, Nepal. The altitude in the bottom of the 30 km long valley inclines from 1,900 m in the south to 2,700 m in the north. Thak Khola is open towards the north and the south while towards the west and the east it is surrounded by some of the world's highest mountains, including Dhaulagiri I



(8,167 m) and Annapurna I (8,078 m). The Kali Gandaki river, which rises in the mountains on the border with Tibet, enters from the north and flows through the valley.

In Thak Khola winters are long and cold, summers short and warm. The climate and the vegetation vary according to the latitude. Due to minimal rainfall and high evaporation caused by strong winds the northern part has a semi-desert vegetation; on the mountain sides where rainfall is higher, are forests with pine, fir, birch, rhododendron, juniper and cypress. In the south rainfall is more than twice as high as in the north and rich forests with coniferous and deciduous trees are found close to the villages.

Villages are nuclear settlements situated near the bottom of the valley, usually where tributaries join the Kali Gandaki. The biggest villages are Marpha, Tukce, Syang and Thini, each having about 100 houses. An old caravan route which connects Tibet with the hills and plains further south runs through the valley, but the nearest motorable road is at Pokhara four days walk to the south. A small airport is located at Jomsom providing several weekly flights to Pokhara and Kathmandu.

Since the 1960's the development of infrastructure has been dramatic, especially around Jomsom which became the district Headquarters in 1975. There are more than 30 government and quasi-government offices in Jomsom, and several in other villages. Jomsom has a small army garrison, a police station, a jail and a wireless station. Another army garrison is located at Kaisang east of Thini. Post offices are found in several villages and there are two banks in Jomsom. Primary and lower secondary schools are found in all major villages and there are higher secondary schools in Jomsom and Kobang (others are planned in Marpha and Lete). There is a hospital in Jomsom and health posts in most other village panchayats. A government agricultural farm is located in Marpha and offices providing agricultural and veterinary services are found in all village panchayats. Almost all the villages have potable water supply systems, and since February 1983 the area between Jomsom and Larjung has had electricity.

The northern part of Thak Khola between Jomsom and Cimang is known as Pacgau and the southern part between Tukce and Ghasa is called Thaksatsai. For administrative purposes the valley is divided into six village panchayats, namely Thini-Jomsom, Marpha, Tukce, Kobang, Lete and Kunjo. In 1977 there were 942 households in the valley, and 69 percent of them were Thakalis. The Thakalis consist of three separate endogamous groups, namely the Tamang Thakalis whose homeland is Thaksatsai; the Mowatan Thakalis who are the indigenous people of Marpha; and the Yhulkasompaimhi Thakalis who are found in Thini, Syang and Cimang. People of Tibetan descent (mainly from Baragau) and occupation castes (tailors and blacksmiths) each account for 11 percent of the population while the remainder are mainly Magars and Tangbetans.

The area north of Thak Khola is known as Baragau and Lo (or Mustang), and is inhabited primarily by Tibetan speaking people. The area immediately south of Thak Khola is inhabited by Magars and Nepali speaking castes.

THE SUBSISTENCE ECONOMY

Collecting

The Thakalis use stones for constructing houses and fences, and flint for making lime for white-washing houses. Clay is used in roof and wall construction while white, blue and red soils are used for coloring walls. Wood is used as fuel, for building houses and bridges, and for making tools and utensils; in Thaksatsai the main fuelwood is pine while cypress and juniper are used in Pacgau. Forest are found close to the villages in Thaksatsai and wood is transported by oxen and men; in Pacgau most of the forests are situated 800-1,000 m above the villages and wood is transported mainly by oxen and jho (a hybrid between common cattle and yak). Small pieces of resinous pine are used as kindling and (in the southern part of Thaksatsai) as a source of light, while resin sap is used as a glue. In the southern part of Thaksatsai mountain bamboo is used for making baskets, mats, brooms and other utensils and tools. Pine-needles are gathered by women during winter and spring and used for making composted fertilizer. Grass from pastures and field boundaries is used as fodder for horses.

Wild fruits and berries are collected, and the nuts of apricot and peach are used for making oil. Wild garlic, mushrooms, edible plants and grasses are collected and used in cooking; bamboo shoots are found and used only in the southern part of Thaksatsai.

Hunting

Hunting is forbidden in Thak Khola and plays, therefore, only a minor role in the local economy. Muskdeer used to be a favorite game because of the musk, and the chukor partridge because of its delicious meat. In autumn red sparrows descend to the villages and at night young men blind them with torches, catch and later consume them.

Agriculture

Agriculture is the main economic activity in Thak Khola. In Pacgau there are two main types of fields, namely the irrigated fields close to the villages (tale), and the non-irrigated forest fields (dongle) situated up to 1,000 meters above the village; two crops are annually obtained from irrigated fields, while only one is grown on non-irrigated fields. Irrigated fields account for an estimated 70 percent of the cultivated area.

On irrigated fields the main winter crop is six-rowed naked barley (karū), while two-rowed hull barley (cika) and wheat (gho) are the secondary crops. Garlic (nho) is cultivated in a small section of a wheat field. Sweet buckwheat (gepe) is the main summer crops and is usually cultivated in those fields where barley and wheat are the winter crops; maize (mokai), beans (simi) and vegetables are the secondary summer crops. In Pacgau the traditional vegetables are hot horseradish (lhapu) and sweet radish (male), but since the 1960's numerous new vegetables have been

Figure 1: Agricultural Patterns in Thak Khola

<u>Area</u>	<u>Type of Field</u>	<u>Season</u>	<u>Main Crops</u>	<u>Secondary Crops</u>
Pacgau	Main Fields (Irrigated)	Winter	Naked Barley	Hull Barley Wheat and Garlic
		Summer	Sweet Buckwheat	Maize and Beans Radish Vegetables
	Forest Fields (Non-irrigated)	Summer	Potatoes Mustard Bitter Buckwheat Radish	
Thaksatsai (North)	Main Fields (Non-irrigated)	Winter	Hull Barley Naked Barley	Wheat and Garlic
		Summer	Sweet Buckwheat Maize and Beans	Potatoes Mustard Bitter Buckwheat Vegetables
	Marginal Fields (Non-irrigated)	Summer	Potatoes	
Thaksatsai (South)	Main Fields (Non-irrigated)	Winter	Hull Barley	Naked Barley Wheat
		Summer	Maize and Beans	Buckwheat Vegetables
	Marginal Fields (Non-irrigated)	Summer	Hull Barley Potatoes	

introduced, including carrot, tomato, cabbage, cauliflower, peas and spinach. Vegetables are mostly grown in an irrigated field which has been converted into an orchard.

In the forest fields villagers cultivate mainly bitter buckwheat (bhre), potatoes (taya) and mustard (nanum). Mustard is a major crop in Syang while little is cultivated in Marpha. In Thini large quantities of local radish (male) are grown in some forest fields situated relatively close to the village.

The agriculture cycle in Syang is as follows. The wintercrops are sown in early November. There are no major agricultural activities in winter, except that the fields are irrigated six-seven times between the sowing and the harvest. Weeding starts in the middle of March and continues for about two-three weeks. In the forest fields mustard is sown in April and potatoes are planted in May, and bitter buckwheat is sown about two weeks later.

Figure 2: The Agriculture Cycle in Syang

	. N . D . J . F . M . A . M . J . J . A . S . O .		
Village Fields	<u>Hull Barley</u>	<u>Maize/Beans</u>	
Irrigated	<u>Naked Barley</u>		
2,850 m		<u>Sweet Buckwheat</u>	
	<u>Wheat</u>		
Forest Fields	<u>Mustard</u>		
Non-irrigated	<u>Potatoes</u>		
3,700 m	<u>Bitter Buckwheat</u>		

The harvest of the winter crops starts in early June with the harvest of hull barley. The plant is cut with a sickle and the ears are detached from the stalks using a tool with a big iron comb (dhasin); the ears are dried and later threshed with a flail. Following the harvest the fields are irrigated and ploughed. If necessary, the fields are manured before ploughing. The best fields are manured only in autumn, while those of low quality are manured in the spring as well. The fields are sown with maize and beans by a woman walking behind the plough dropping grains into the furrow. The fields are then harrowed using a wooden board drawn by a pair of jho and weighted by a man. This is done to cover the seeds and to facilitate irrigation. The harvest of naked barley starts in the middle of June and last until the beginning of July. Wheat is the last winter crop to be harvested. While naked barley is being harvested the village headman consults with the village astrologer to find an auspicious time for the sowing of sweet buckwheat; the day is announced to the villagers and people are fined if they start to sow before this date. The sowing of sweet buckwheat takes place shortly after the wheat has been harvested and lasts for one week. The fields are first irrigated and, if necessary, ploughed and manured. The seeds are then broadcast and the ground ploughed and harrowed.

The period between the sowing and the harvest of the sweet buckwheat is less intensive than the two harvest periods, but there are still many agricultural activities, especially in the forest fields. It is also during this period that weddings and some major festivals take place. Maize is weeded and soil heaped around the stalks in the second half of July. Mustard, bitter buckwheat and potatoes are weeded at the end of July and sweet buckwheat at the beginning of August. Sweet radish is harvested in the middle of August, mustard in the beginning of September, bitter buckwheat in the middle of September, and maize in the last week of September; the potato harvest commences at the end of September.

According to locals, sweet buckwheat takes exactly 108 days to mature and it is forbidden to harvest the crop before this period has ended. The harvest usually takes place in the second half of October, the exact day being determined by the village astrologer. The ears are cut with a sickle and spread out on a big blanket and beaten with wooden sticks. After the harvest fields are irrigated and from a day fixed by the village headman animals are allowed to graze in the fields for about two weeks. The fields are then fertilized, ploughed, and sown with barley and wheat.

Except for a few fields in Tukce and Sauru, the fields in Thaksatsai are not irrigated. An estimated 50 percent of the fields give two annual crops while others give only one. The fields which produce two crops are usually found closer to the village than those giving only one crop; two yearly crops are more common in the northern part of Thaksatsai than in the southern part. In Pacgau the irrigated fields continuously give two yearly crops, but in Thaksatsai the fields sometimes lay fallow for one season to regain their strength.

In the southern part of Thaksatsai hull barley is the main winter crop and maize and beans the main summer crops on fields which give two yearly crops; naked barley and wheat are the secondary winter crops and buckwheat the secondary summer crop. Hull barley and potato are the main crops in the fields which produce once yearly. In summer vegetables are grown in a corner of a maize field or in a field with fruit trees; in addition to the vegetables found in Pacgau, pumpkin, watermelon and soyabean are also grown in the southern part of Thaksatsai.

In the northern part of Thaksatsai hull barley and naked barley are the main winter crops in the fields which give two annual crops while sweet buckwheat and maize are the main summer crops; wheat is the secondary winter crop while bitter buckwheat, potato, mustard and vegetables are the secondary summer crops. Potato is the main crop in the fields which give only one crop yearly.

Animal Husbandry

Animals husbandry plays an important role in the economy of the Thakalis. Cattle and jho are an integral part of the subsistence economy while goats, sheep, yak and mules are 'cash-crop' animals kept primarily to produce goods or services for market sale. These elements will be described later.

There are two types of cattle in Thak Khola, namely Tibetan dwarf cattle (mhe) (found mainly in Pacgau) and humpbacked zebu cattle (mhon mhe) (found in Thaksatsai). In addition to reproductive purposes, cows are kept for milk and dung production. The Tibetan cow is milked for a period of six months with a daily production of maximum three mana. If a calf dies a tulchan is occasionally used to ensure the cow gives milk.

The Tibetan cattle are the garbage collectors of the village. They

roam freely and eat grass, straw, human faeces, and thrown-away paper and clothes; at home it is fed with straw, husk and the leftovers from the production of alcohol. Although milk production is low, the Tibetan cow is a useful animal because from low value inputs it produces a valuable output, dung, which is used for fertilizer. The value of dung is high and villagers collect it when they take their cattle for watering.

In addition to dung, bulls are kept for reproduction and transportation, and oxen for transportation and traction. Cattle are kept in the village during winter and at upper pastures in summer. In Kobang and Larjung there is a cooperative system for herding cattle. Participating households supply labour on a rotation basis and every morning two herdsmen take the village herd out for grazing.

The jho is a cross-breed between yak and common cattle. The male jho is sterile and is known as jhopa, and the female as jhomo. The jho are used primarily for traction and transportation and Thakalis, therefore, mainly keep the stronger jhopa. In addition, jhomo with a calf would not be able to work, and calves often die shortly after birth. Almost all the jho in Thak Khola are products of a yak bull and a zebu cow as this variety adapts best to the local ecological conditions. The Thakalis dislike breeding hybrids and jho are imported from Nubri, Rasuwa and Solu.

In 1977 there were 270 jho in Pacgau, and Syang had the largest number (99). There used formerly to be many jho in Marpha, but there are now only four animals in the village. The jho does not adapt well to the ecological conditions in Thaksatsai and there are only a few in that area. The jho is used for traction and to transport wood and other products from the forest down to the village. In winter they are also used to transport salt down to Tatopani south of the valley, and to bring rice back. In winter the jho is fed with straw and left-overs from the production of alcohol; in summer they are let loose in upper pastures. The Thakalis do not slaughter and eat cattle or jho, and old animals are sold to Tibetan speaking people living in Thak Khola or further north.

THE NEED FOR CASH

Although the majority of the Thakalis produce many of the goods needed by the household, none are self-sufficient, and therefore have to buy goods and services at the market. In addition, households need money for paying taxes and fees, and to cover expenses for religious ceremonies, marriages and entertainment.

Goods

Locally Produced Foodstuffs. Most households produce enough grain to meet their requirements, but some do not produce all varieties of local foodstuffs and buy certain products at the market. For example, buckwheat porridge is one of the two main daily meals in Pacgau, and households with little land cultivate sweet buckwheat as the only summer crop and buy their

limited requirements of maize and beans locally, or in Thaksatsai. Also, many households in Jomsom do not produce potatoes and import this crop from Lete and Baragau. Households running inns usually need more barley for making alcohol than they produce themselves and buy this crop at the local market. Further, muleowners from Pacgau buy large quantities of maize and some hull barley from Thaksatsai; the maize is usually purchased in November when the price is low and transported back to Pacgau on jho or oxen.

Paddy is not grown in Thak Khola, and until a few decades ago the Thakalis had rice only on special occasions. This has changed and except for the poorest households the Thakalis now eat rice once a day. Due to high transportation costs rice is very expensive in Thak Khola. For example, one pathi of rice sells for 23 Rs in Pokhara but costs 55 Rs in Jomsom. Rice is a major expenditure and a household with four adults consume about 90 pathi of rice a year costing about 5,000 Rs.

To reduce the cost most households buy their rice in the south, but some rice is also bought locally from shops and traders. Muleowners buy their rice in Pokhara and transport it to Thak Khola in autumn or in spring. Households with jho and oxen often buy their rice in Tatopani in winter and transport it back on these animals. Households without mules sometimes buy their rice in Pokhara and have it brought to Thak Khola on others' mules; although the transportation cost is high (6.50 Rs per kg), it is up to five rupees less than buying it in Thak Khola. The Thakalis usually do not porter their own rice. It is more cost-effective to use mules and the Thakalis do not like to be seen carrying heavy loads along the caravan route.

Since the 1970's the Nepal Food Corporation has been selling rice in Thak Khola at subsidized rates charging 7.14 Rs per kg for rice which costs about 12.10 Rs per kg at the local market. The Corporation is, however, selling only limited quantities. Villagers can buy only about two pathi per person per year, a fraction of that required.

Animal Products. Only 19 percent of the villagers raise goats, sheep or yak. Others must buy meat and other animal products in the market. In Thak Khola, meat is dried and used in meat-curry. Compared to Western standards meat consumption is low and a person eats only a few small pieces of meat with his rice. Rich households have meat almost daily while the poor eat it only in connection with festivals and marriages.

The local supply of meat comes from old, female yak which are slaughtered when they reach about 15 years. Although some Tamang Thakalis do not eat yak meat, the demand exceeds the local supply and old, castrated males are imported for slaughter from the north. Several households usually share the cost of one yak and the meat is divided into equal shares and allocated by drawing lots. The skin is sold while the tail is given to the man who arranges the purchase and slaughter of the animal.¹⁰ An old, castrated male yak costs 3,500 Rs and the larger, rich households consume one yak a year.

The demand for goat and sheep meat also exceeds the local supply.

These animals are imported from Lo and Tibet; in addition, sheep are bought from southern herdsmen whose animals come to Thak Khola to graze in summer. A large, local castrated male goat costs 800 Rs, and a Tibetan sheep 470 Rs.

The Thakalis drink milk only occasionally. They do drink milk tea, and in summer use the milk from their cows, and in winter powdered milk imported from China and India. Yak milk is made into butter and used for butter tea. Few households have yak, others buy butter at the market price of 90 Rs per kg. Demand for butter exceeds local production and traders from Dolpo come to Thak Khola to sell butter (one weight unit of butter is exchanged for seven units of naked barley). Hard cheese (chyrupī) made from whey is eaten as a sweet (one pathi of cheese costs one pathi rice).

Wool is used for making shawls, blankets, carpets and coats. Sheep are reared only in the southern part of Thaksatsai and while most of the wool used there is produced locally, the Thakalis further north import wool from Lo, Dolpo and Tibet (Tibetan wool costs 40 Rs per kg). Goat- and yak-hair is used for making blankets, sacks and rope, and costs 10 Rs per kg.

Other foodstuffs. In addition to rice and animal products, the Thakalis buy tea, salt, cooking oil, lentils, sugar, spices and other foodstuffs in the market. Tibetan salt is brought to Thak Khola by northern traders in summer. Since the 1970's National Trading Ltd. has been selling Indian salt in Jomsom at subsidized prices. Block tea for making butter tea and dust tea for making milk tea are bought in local shops. Some Thakalis occasionally travel to Kalimpong in India to buy, among others, block tea for sale in Thak Khola. Cooking oil is produced locally, but demand exceeds production and oil is imported from Lo and the south.

Clothes and footwear. Thakali men wear nepali-style trousers, shirts and waist coats. When it is chilly men wear a woolen west, sweater, a jacket or woolen blanket. Men's traditional winter dress is a woolen Tibetan-style overcoat. This coat is worn by many men in Thini, Syang and Cimang and is also used in Marpha while the Tamang Thakalis gave it up a long time ago and instead wear Western-style coat and jackets. Thakali women wear a Nepali-style blouse and sarong for every-day use, and a saree for special occasions, and in winter a woolen sweater, shawl and a Western-style overcoat or a jacket. Some women (especially in Pacgau) still wear the traditional Thakali dress, a pair of wide cotton trousers with a cotton or velvet blouse, a long cotton or woolen belt tied around the waist, and a black velvet or multistriped woolen apron in the back. The traditional winter dress is a woolen overcoat for daily use and a sleeveless multistriped woolen coat for special occasions.

Woolen clothes are made locally from high-quality Tibetan wool. Thakali women prepare the yarn on a hand spindle but the weaving is done by women of Tibetan descent living in Thak Khola, or women from Baragau. Sweaters are knit all over the valley and in the southern part of Thaksatsai blankets and shawls are woven from local wool. Cotton material is bought from local shops, southern traders visiting Thak Khola, or during visits

to the south and made into clothes by local (non-Thakali) tailors.

Western-style clothes have become popular in recent years. Young men wear western-style shirts and trousers, such as blue jeans. Many men (and also some women) wear nylon and down jackets, and ready-made sweaters and shawls are also popular. Women's dress has not changed much but some young women studying in Pokhara and Kathmandu wear jeans, knickers and even tracksuits while on home leave. The Thakalis first bought Western clothes second-hand from tourists. In recent years the bazaars of Pokhara and Kathmandu have been flooded with cheap, ready-made clothes from Bangkok and Hongkong and the Thakalis buy western clothes from these places.

In summer the Thakalis wear leather shoes made by southern shoemakers who stay temporarily in Thak Khola. They also use ready-made tennis-shoes, plastic sandals and leather shoes costing between 20 and 350 Rs. The shoemakers copy the latest ready-made models and in 1983 leather shoes copied from NIKE tennis-shoes were made in Thak Khola. In Pacgau some men and women wear Tibetan style winter boots made from leather and cloth. Others find them old-fashioned and in winter use their summer shoes or boots bought from tourists.

Other goods. In addition to foodstuffs, clothes and footwear, the Thakalis buy numerous other goods at the local market or in the south, such as kitchen utensils, torchlights, batteries, matches, kerosene, oil, soap, pens, paper, biscuits, sweets, medicine and cigarettes. Kitchen utensils are traditionally made from copper and brass, but in recent years ready-made aluminium pots and stainless-steel plates have become increasingly popular. Some Thakalis smoke up to twenty cigarettes a day; most people use cheap brands, but some prefer expensive filter cigarettes and may spend 10 Rs a day on this habit.

Services

Most households have no more land than they can efficiently exploit with their own labour resources. The two main harvests are, however, very labour intensive and during these periods many households temporarily employ additional labour. Those households which have more land than they themselves can exploit lease land on tenure or hire labour on a more permanent basis. Also, herds of yak, goats, sheep and mules are often attended by hired herdsmen. Some households have sufficient labour in relation to their resources but need to hire labour because members work as teachers, run an inn, or are engaged in other non-agricultural activities.

In Thak Khola there are four main categories of labourers.

First, in early summer Tibetan-speaking men and women from Baragau, Lo and Dolpo come to Thak Khola where they work for four-five weeks during the harvest of the summer crops. The daily wage is four mana naked barley in Pacgau and one pathi hull barley in Thaksatsai (in addition to food). Since the late 1970's the number of these labourers has decreased. Local

informants mention that the people from Baragau now trade more in the south and that some travel to Manang where wages are higher than in Thak Khola. In addition to these seasonal labourers, some men from Baragau and Lo work in Pacgau for one year or longer, herding yak, goats and mules. In addition to food and clothes herdsmen are paid 1,000-1,200 Rs a year (mule-drivers receive a few hundred rupees more); in lieu of food muledrivers receive 30 Rs daily as subsistence allowance while in the south.

Secondly, men from the middle hills (especially Magars from Myagdi but also Tamangs from Eastern Nepal) come to Thak Khola to work for half a year or longer as general helpers or herdsmen. Wages are higher in Thak Khola than in the south, and although prices are also higher a thrifty person can save more. Men who work as general helpers receive food, clothes and about 1,200 Rs a year. The number of labourers from the south has increased in the past decade and includes also masons, housebuilders, carpenters, electricians and plumbers. Some work under contract (build a wall, make a door, harvest a field) while others are paid a daily wage (20 Rs plus food).

The third category of labourers includes people from the occupation or 'lower' castes (rhi mawa). All major Thakali villages have one or two non-Thakali tailor (duli) and blacksmith (kemi) households, but there are more in Taglung, Tukce and Marpha. These people have little or no land and the income from their traditional occupation is usually so little that they have to sell their labour. They work as daily labourers for the Thakalis and are paid the standard daily wage. A few men work for long periods as herdsmen and some women as general helpers in Thakali households.

Finally, some Thakali find it necessary to sell their labour to subsist. These Thakalis work for others on a daily basis or for long periods as herdsmen and general helpers.

Other sources of labour are available. Households may call on close relatives for a helping hand; children (and their family) are expected to help their parents free of charge while others are paid the standard daily wage. Another way of solving labour shortage is through inter-household cooperation.

Some Thakali households do not use general helpers and herdsmen, but all need the services of specialists to perform certain tasks which they cannot do themselves due to the lack of skills, or for socio-religious reasons. The occupations of blacksmith and tailor are associated with impurity and no Thakali have taken up these occupations.¹² The blacksmith makes and repairs tools and kitchen utensils while the tailor makes and repairs clothes and drums during village meetings, festivals, ceremonies and marriages. These specialists usually work on a daily wage basis receiving 20 Rs a day plus food. In addition, tailors and blacksmiths annually receive goods from each of the households they serve. In Syang, households in the village assembly each pay their tailor and blacksmith one pathi of sweet buckwheat, ten pieces of bread, some alcohol and occasionally meat.

The Thakalis need the services of a carpenter to build and repair their houses and to make furniture. The occupation of carpenter is not associated with impurity and a few Thakalis have specialised in this field, but due to the high demand outsiders are also working as carpenters in Thak Khola. They are well-paid and receive 35 Rs a day plus food. Finally, the Thakalis need the services of specialists to perform religious ceremonies. These specialists are paid about 20 Rs a day plus food, but the most respected lamas receive 100 Rs or more.

Rent and Interest

Most Thakalis own the house in which they live, but a few poor or newly established households rent houses which usually belong to a relative. Costs are negligible, for example, as payment the tenants in Syang only have to work for their landlord three to five days each year.

Some Thakalis rent fields; almost all are landowners and only few are landless. Rented fields belong to Thakalis living outside the valley, to patrilineal descent groups, temples, local villagers who are too old to look after their fields, or those who have too much land in relation to their labour resources.

Rent is paid in two ways. Under the first system (which is found only in Thaksatsai) the tenant provides the sow seed and pays the landlord one third of both harvests. Under the second system the tenant pays a fixed amount of money or grain regardless of the actual production (rent is usually paid in cash in Thaksatsai and in kind in Pacgau). In Syang tenants pay three units of naked barley for each unit seed required, and keep the summer crop themselves.

Hiring of animals is limited. Some households hire jho and oxen for ploughing at a cost of 20 Rs a day.

Many Thakalis have taken loans and need money to pay interest and repay principal. Loans are generally obtained for investment purposes, but poor people also take loans to finance daily household expenses, marriages and death ceremonies. As described later, loans are obtained from banks, moneylenders, local credit and saving associations, and from funds belonging to patrilineal descent groups, villages and temples.

The traditional interest rate was ten percent and this rate was still in effect in 1972. Since then the rate has increased and on the private market it is 15-36 percent, while the banks charge 10-16 percent according to the purpose of the loan. The rate on loans from patrilineal descent groups, villages and temples remains, however, at 10 percent and consequently these loans are much sought after.

Taxes and Fees

In the 19th century tax to the Government was the biggest expenditure

on the household budget. The tax for Pacgau was 3,001 Rs, 3,301 Rs, 3,601 Rs, and 4,001 Rs a year during the periods 1807-27, 1828-62, 1863-72 and 1873-77, respectively; in 1878 the tax was reduced to 3,601 Rs. These taxes were extremely high and 3,001 Rs in 1809 prices amounts to several hundred thousand rupees in current prices. Many households could not pay their share of the tax and left Thak Khola. This caused problems for those left behind because the tax remained fixed regardless of changes in the number of households in the area. In 1808, 1827 and 1877 the villagers of Pacgau sent delegations to Kathmandu to request for a reduction in the tax due to emmigration and natural calamities. The tax was reduced only in 1877, but on the other hand, it did not raise much during the period 1809-78 and in real terms the tax was lower in 1878 than in 1809.

Presently, I have no information on the tax paid during the period 1878-1967, but Pacgau paid 1,259.39 Rs in 1972 and it is therefore safe to conclude that the tax was substantially reduced (both in real and absolute terms) during this period. The tax was even lower in the 1960's than in 1972. For example, Syang paid 260.26 Rs in 1972, 236.60 Rs in 1969, but only 118.30 Rs in 1968.

Since 1978 the peasants in Thak Khola have paid their land tax on an individual basis. One man who has about one acre of land paid 32 Rs in tax in 1978, but in 1979 the tax was reduced to only 8.36 Rs (about the price of one packet of local filter cigarettes). In sum, while the Thakalis were heavily taxed in the 19th century and had to hand-over most of the surplus they produced to the Government, the present taxes are extremely low, especially considering the cost of the services which are being provided by the Government.

Since the 1970's the Government has been charging a fee for the cutting of timber. The present rate is seven rupees per cubic feet. Thakalis have always had free access to the forests surrounding their villages and complain that the fee has made housebuilding a costly affair. In Thak Khola primary schooling is free, but male students pay six to ten rupees a month tuition in secondary schools. Also, owners of transistor radios pay 10 Rs a year as a fee to the Government. As mentioned earlier, electricity was introduced in Thak Khola in 1983 and villagers pay 10-20 Rs a month according to their consumption.

Finally, the villages in Thak Khola have their own local rules and transgressions for which fines are levied include, among others, cutting woods from protected forest, sowing and harvesting before prescribed dates, cattle entering fields, and failure to participate in communal work.

Capital Investment

In Thak Khola the major capital investment goods are jewelery, houses, land and animals. The women's main jewelery is a coral and turquoise necklace which costs about 25,000 Rs. Gold jewelery is not made in Thak Khola but acquired during visits to Pokhara or Kathmandu.

House prices vary according to quality, size, age and locality. Prices are high in Jomsom and a good house cost 30,000-35,000 Rs in 1977. Land is very costly at Jomsom Airport and the houses there are the most expensive in the valley; in 1980 a man from Syang bought the oldest house there for 61,000 Rs and in 1983 he sold half of it for 43,500 Rs. Houses are also expensive in Marpha and in 1977 the best ones cost 40,000-50,000 Rs. Prices are lower in the villages away from the main caravan route. In 1977 a medium quality house cost about 5,000 Rs in Cimang, 6,000 Rs in upper Syang and 9,000 Rs in Taglung. House prices have increased greatly in the past few decades. A house in Marpha which cost 300 Rs thirty years ago recently sold for 36,000 Rs, and another house which was bought for 900 Rs in the early 1940's had a market value of 50,000 Rs in 1981. Housing costs have accelerated in recent years and I am informed that the present 1984 prices, in general, are about 100 percent higher than the 1977-prices quoted above.

There is a limited supply and sale of houses. In 1978 only one house was sold in Syang (6,000 Rs) and there were no sale in the following two years; there was no sale of houses in Marpha in 1980. Given the limited supply, people in need of a house often build their own. The cost involved has gone up and a new house constructed in Syang in 1983 cost about 50,000 Rs. This is attributable primarily to an increase in the salaries of carpenters and unskilled labour, but also because people now pay a fee to the Government for cutting timber. In addition, new houses are of a better quality than the old and generally have glass windows and wooden floors.

The supply and sale of land is also limited.¹⁴ In most villages there are only one or two sales a year, but more fields are occasionally for sale when a household emmigrates permanently from the valley. In Syang only one field was sold in 1980-81 and in Cimang there was only one landsale during a three-year period. In Pacgau a field is measured by the amount of seed needed to sow it. In Jomsom land cost about 600 Rs per pathi of seed in 1977, while in Marpha the price was 1,600 Rs. Also in 1977, a ropani of the best land cost about 12,000 Rs in Marpha, 3,000 Rs in Lete and 2,500 Rs in Taglung, while one ropani of lower quality land cost 1,500 Rs in Lete and 700 Rs in Taglung. The price of land has increased in the past decade, due mainly to the introduction of apples as cash-crop, and, along the main trail, because of the possibility of making tourist hotels. For example, in 1982 a man from Marpha refused to sell a field for 10,000 Rs which he had bought for 800 Rs around 1960.

The most expensive land is at Jomsom Airport which, in spite of its name actually belongs to Syang village. In the early 1960's a small airstrip was constructed on this barren plain which originally was used for grazing animals. The airstrip was extended in 1972-73, and at that time the only house at the airport belonged to Syang village and was rented out to some Tibetan refugees who ran a small inn. In the early 1970's villagers from Syang started to buy the land around the airfield. By village rule households can buy one plot of barren village land measuring 20 by 20 yards each year. The price is one rupee per yard, and a plot which measures 20 by 20 yards costs 40 Rs. Initially there was sufficient land, but later the

demand increased and the village sold the last plots at an auction for about 300-500 Rs apiece. Only villagers from Syang were allowed to buy the land, but as soon as it became private property the land could be sold to outsiders. Realizing the value of the land, Thakalis from Marpha and Thaksatsai started to buy plots paying about 2,000 Rs apiece. Most of the villagers from Syang were happy to get 2,000 Rs for a plot of land which they had bought for 40 Rs only a few years earlier. The prices continued to rise, however, and a plot along the main trail cost 25,000 Rs in 1981 and 33,000 Rs in 1983. The villagers from Syang now regret that they sold their land.

Following the increase in land prices villagers in Pacgau started to buy plots of barren land surrounding the villages; some have established small orchards while others keep the land as an investment. In 1980 an ex-soldier from the British Army returned to Syang and purchased half of the plain above Jomsom Airport from the village for 550 Rs (there used to be fields at this location but they were abandoned long ago due to inadequate water-supply). The ex-soldier has brought water to the plain from a remote water source using polythene pipes and has planted fruit-trees there. Recently, the ex-soldier was offered 150,000 Rs for the property, but he refused to sell it.

Miscellaneous Expenses

In addition to the above items, the Thakalis need cash to cover other various expenses. When a person falls ill, the household spends money on healing ceremonies and/or Western medicine. Marriage and death ceremonies are costly and expenses usually exceed 10,000 Rs. The Thakalis have stopped distributing goods to villagers in the name of deceased relatives (dhon), but to obtain merit old Thakalis occasionally distribute grain and money worth several thousand rupees (jhimpa piwa). In the evenings Thakali men like to visit local inns to have a few glasses of alcohol (one glass costs two-three rupees) and some men expend more than 100 Rs a month on this habit. During festivals men play cards and have archery contests and while some make an income, others spend several hundred rupees in a few days. In addition, men expend money on drinks and snacks during festivals. Some men drink Star Beer and Kukri Rum instead of local beer and alcohol (in 1983 the inns charged 36 Rs for a bottle of Star Beer). Gambling is allowed only for a few days during the main festivals but a few Thakalis gamble more regularly at some hotels in Jomsom (the stakes are high and some have lost several thousand rupees in one night).

During winter many Thakalis travel to Pokhara and Kathmandu on business, pilgrimage or to visit relatives. Some spend only a few hundred rupees on such trips while others use much more. Visitors usually buy goods to bring back home. A Thakali who visited Kathmandu in 1984 spent more than 14,000 Rs on various consumer goods, and in Pokhara he spent 6,000 Rs on rice. In another case a young man stayed one month in Pokhara to prepare himself for an examination and including various 'fees' the stay cost him 4,600 Rs. Some Thakalis send their children to Pokhara and Kathmandu for education. In one case a man is paying 600 Rs a month in tuition and

and boarding fees for his eight year old son. In 1972 relatively few households had transistor radios and only a few men wore watches. This has now changed. The Thakalis now prefer radio-cum-cassette recorders which cost 2,500 Rs or more. Except for the oldest generation, most men and many women wear watches. Most watches are Seiko or similar brands which cost 500-1,000 Rs, but some have digital watches and a few wear expensive Swiss watches. Finally, in connection with the introduction of electricity, many households have used about 1,300 Rs to install electricity to their houses.

WAYS TO MAKE AN INCOME

As described above, the Thakalis buy goods and services at the market. In addition, households need cash for paying taxes and fees, and to cover other expenses. The present section examines how the Thakalis make an income to cover these expenses.

The Sale of Goods Produced by the Household

One way to make an income is to sell goods collected or cultivated by the household.

Collecting and hunting. A few households (especially in Cimang) produce and sell an oil made from the nuts of various fruits which is used to oil hair and to massage children and sick people. Wild peach and apricot are collected and sold locally (one rupee buys about 30 fruits). Yarca ghumbu which is considered an aphrodisiac, is collected in high pastures and sold to local traders who resell them in the south. Grass from field boundaries and pastures is collected and sold to horseowners (two rupees per kg). Some villagers sell fuelwood to hotels and government offices and employees (a small jhopa-load costs 30 Rs and a man-load 22 Rs). Many new government offices are being constructed in Jomsom and Marpha and villagers sell stones to the contractors (a pile of stones measuring 5 by 5 by 3 feet costs 120 Rs). In the southern part of Thaksatsai villagers make baskets, mats, brooms, and the like from mountain bamboo and sell these goods to villagers further north. In the same area people collect cannabis and sell it to traders who resell it in the south.

Hunting used formerly to be an important way to make cash. It is now forbidden but muskdeers are occasionally killed and the musk is sold for about 700-800 Rs a tola (i.e., 11.7 grms). Most of the musk exported from the district is from Tibet, however, and is bartered from Chinese soldiers in exchange for watches and other consumer goods. The Impeyan pheasant is occasionally killed; the tail and head feathers are used for making arrows and cost 60 Rs.

Agriculture. Most households have a surplus of certain crops which they sell for cash, barter for goods, or use as payment for services. In the southern part of Thaksatsai there is a large surplus of maize and hull barley. Maize is sold (28 Rs per pathi) to muleowners from Pacgau and further north, while hull barley is sold (25 Rs per pathi) to people from

the north who use it for making alcohol and feed mules. Naked barley is the main winter crop in the northern part of Thaksatsai and in Pacgau and is used for making alcohol, snacks, and flour for mixing in butter-tea. Many households have a surplus of this crop and sell it (42 Rs per pathi) to inns, barter it for salt, sell it to northern traders or use it as payment to labourers.

In Syang, Thini and Cimang hull barley is used for making yeast which is sold to people in Marpha and Thaksatsai who do not usually produce yeast. In December 1980 a man from Thaksatsai bought 9,000 yeast coins in Syang for 300 Rs.¹⁶ The seller produce about two muri of hull barley a year, and except for the seeds required for sowing, the whole production is used for making yeast. This gives him an income of about 1,200 Rs, but others sell for as much as 2,000 Rs a year.

Some villagers (especially in the southern part of the valley) have a surplus of potatoes and sell them (9 Rs per kg) in Jomsom and south of Thak Khola. A few farmers cultivate an improved variety of wheat (RA 21) which they sell (8 Rs per kg) to the Agriculture Inputs Corporation. In 1980 the Corporation bought about 60 muri of this wheat which it resold further north.

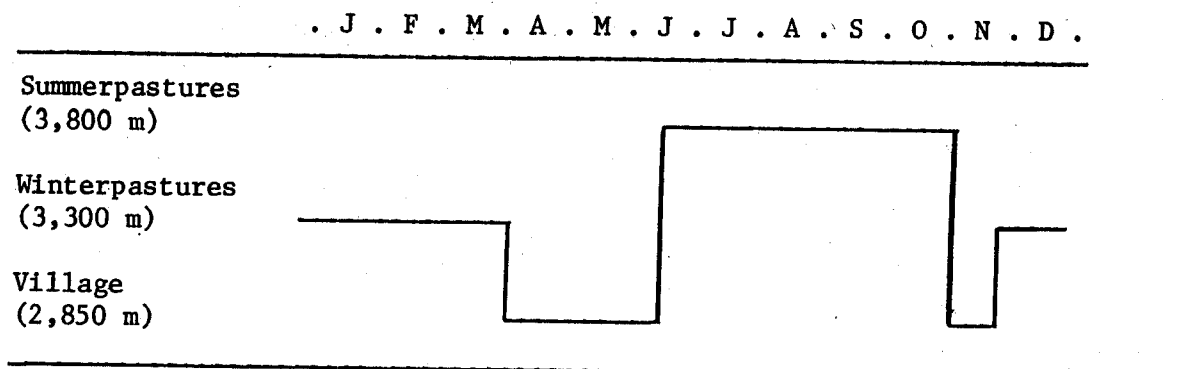
Animal husbandry. Although cattle and jhopa are kept as an integrated part of the subsistence economy, they are a source of little cash income. Some cow-owners sell milk, and jho are used for carrying fuelwood for sale and rented out for ploughing. The Thakalis do not eat cow and jho meat and old animals (and also fat dead ones) are sold to Tibetan speaking people.¹⁷

Goat, sheep, yak and mules are one of the main sources of cash income in Thak Khola, especially in Pacgau. In 1977 forty percent of the Thakali households in Pacgau and 24 percent of the households in Thaksatsai had one or more herds of these animals. A viable herd of any of these animals costs 40,000-50,000 Rs. While cattle and jho are looked after on a part-time basis by household members, the 'cash-crop' animals are herded by fulltime herdsmen (usually hired).

In 1977 there were 2,700 goats in Pacgau, but in Thaksatsai only 600. Jomsom and Syang are the major goat-rearing villages. Herds are usually owned by individual households and the average herd has 60 animals. Some households have only a few animals and keep them with the herd of a relative. Most of the goats are of a local variety (shira), but there are also some Tibetan goats (jhyangra) and some of a southern variety (mhonra).

In Syang (2,850 m) the goats are taken to the winter pastures 400 m above the village in November and stay there during the winter. Any snow-fall usually melts away within a few days, but in case of heavy snowcover the goats are brought down to the village and fed on buckwheat halm. The first kids are born in the middle of March and two weeks later the herd is taken down to the village where it stays until mid-June. Until they are six weeks old the kids are kept in the goathouse during the daytime, while the nannies and the castrated billy-goats graze around the village. The kids

Figure 3: The grazing cycle of the goats, Syang village



are kept separate from the nannies during the night, but in the morning they spend an hour feeding. Kids are given leaves from the syola tree (which is the only tree used as fodder) until six weeks of age when they start to graze with the herd in the daytime. When they are about two months old the kids are no longer allowed to drink milk and the nannies are milked every morning; goats give about a mana of milk daily during the first months they are milked.

In the middle of June goats are shorn and taken to the high pastures (about 1,000 m above the village) where they stay until early November. During the night animals and herdsman sleep in a small stone house situated at the forest fields (kids continue to be kept separate from the nannies). Milk is boiled into curd, and twice a week it is carried down to the village in bags made from the stomach of the goat. In the summer all the billy-goats are collected into a single village herd and kept separate from the other goats. In 1980 the person responsible for this herd received half a pathi sweet buckwheat for each animal in the herd. He also received the goats dung and the villagers who take this job are usually in need of manure for their forest fields. Alternatively, people in need of manure get goats to stay at their fields and provide food for the herdsman as payment.

When the summer crops have been harvested in early November goats are taken down to the village to graze in the fields for two-three weeks. This arrangement benefits the herd owner who receives free fodder for his animals, as well as the field owner who gets free manure. It is during this period that mating usually takes place.

The nannies begin to reproduce when they are two years old. Their reproduction ends 10-12 years later and they are then slaughtered. The male kids are castrated when they are about six months old but occasionally a fine male is taken aside for breeding purposes. Castrated males are sold or slaughtered when they are three to six years old. In Thak Khola they are not used for transporting goods.

A herd with forty mature nannies may produce thirty kids in the best

years, but due to miscarriages and the killing of kids by forest leopards and cold, no more than fifteen usually survive. In some years large numbers of goats die due to cold and sickness. For example, in the winter 1975-76 many goats died due to scabies (luto). In Syang about 400 animals died and while some households lost only a few animals, one household lost 80 out of 90 animals and subsequently stopped rearing goats. Also, many goats and yak died due to heavy snowfall in the winter 1981-82. Brain infection (lyo kor shyuwa), hoof diseases (bya nai) and water in the heart (tin chyu sawa) are other common causes of mortality.

In January 1981 an informant from Syang had 78 goats. The herd included 43 nannies, 3 billy-goats and 5 castrated goats born in 1978 or earlier; it also included 7 castrated goats and 9 nannies from 1979, and 11 kids from 1980 (one kid had already been eaten by forest leopards). On the average the herd increased 14 animals a year. In 1977 a four-year old castrated goat sold for 350 Rs, and an increment of 14 animals thus represented a value of about 5,000 Rs. The sale of hair and curd gave the owner another 500 Rs. The expenses amounted to about 2,000 Rs for food and clothes for the herdsman and another 500 Rs for salary. The net profit thus became 3,000 Rs. The price of goats is now 800 Rs and the net income from the herds has increased accordingly.

Sheep are reared only in the southern part of Thaksatsai and the biggest sheep-rearing villages are Lete and Ghasa. In 1977 there were a total of 2,300 animals; the average herd had about 140 animals. Sheep are not raised in Pacgau because of the lack of suitable winter pastures and, according to informants, sheep lose their wool on the thorny bushes above the village.¹⁸ Sheep are kept for the sake of their meat, wool, milk and dung. Wool is an important product and is used for making blankets and rugs.

Yak are reared all over Thak Khola and the biggest yak-rearing villages are Marpha, Kobang, Larjung, and Naprunghung. In 1977 there were 1,550 yak in Thak Khola, and the average herd had about 30 animals. The herds are owned by single households or jointly by two or more households.

From the beginning of April to the beginning of November yak graze on the highest pastures and in winter on pastures nearer the village. In addition to this vertical movement yak are sometimes moved horizontally within the valley. For example, in Kobang yak are kept on pastures above the village in winter, but in summer they are moved on to Marche on the other side of the valley. In winter snow seldom stays for more than a week and yak can easily survive without grass for a few days by using the bodily reserves stored up in summer from grazing on the rich mountain pastures. In case of heavy and continuous snowfall the yak are taken to pastures close to the village, or even to the village itself to be fed on halm.

The herdsman lives in a small tent made from bamboo mats, blankets of woven yak hair or canvas. A low stonewall is built along the inner side of the tent to make it more comfortable. Bulls live alone for most of the

year, but mate with the cows (pri) from June through September. Every month in winter the herdsmen locate the bulls to make sure that they are alive and have not left the pastures. Calves are born nine months after mating, usually between April and July. Cows and calves are kept separate a night and cows are milked in the morning. Milking starts two-three weeks after the birth and cows give about three mana of milk a day. In winter they are milked only if the herdsman needs milk for his own consumption. The milk is used for making butter and hard cheese (chyurpi).

The Thakalis also utilize the yak's meat, blood, skin and hair. The skin is used for making ropes, while hair is used for weaving blankets and rugs. The yak graze on the high pastures where many medical plants are found, and yak blood is believed to be good for weak people and those living in hot malaria-infected areas. Every summer hundreds of local Thakalis a few Thakali emigrants and southern people gather at the pastures to drink blood. An animal is caught with a lasso, tied and a vein in the neck opened. After a dozen or so cups have been filled the cut is closed by placing dung over it and the animal is let loose.

A yak herd consists of a core of cows, their offspring and a few bulls. North of Thak Khola young males are castrated and used for transportation and traction, but this is not done in Thak Khola where jho and oxen are used for these purposes. Young uncastrated males are sold to Baragau, Lo and Dolpo when they are four-five years old. Occasionally a young male of good breed is taken aside for reproductive purposes. Cows are slaughtered when they are 15-18 years old and are no longer productive. As mentioned earlier, in Thak Khola the demand for yak meat exceeds the local supply and old castrated males are imported from the very same areas to which the young males are exported.

In 1980 the owners of a yak herd had a net income of 8,500 Rs from 28 animals. In July they sold four young males to a man from Baregau for a total of 6,350 Rs. In the village they sold 190 butterballs for 4,750 Rs, hair for 100 Rs, and exchanged 36 pathi cheese for 36 pathi sweet buckwheat flour, representing a value of 600 Rs. In addition, they received about 300 Rs from the drinking of blood. The herdsman was paid 1,100 Rs in salary, while expenses for his food and clothes were about 2,500 Rs.

The return from a yak herd depends mainly on the survival rate among calves. In 1979 one herd included twelve cows, eight of which gave birth. Forest leopards killed six calves and only two survived. In 1980 the herd included thirteen cows, all had calves. That year leopards killed seven calves and two others died from other causes. While forest leopards have been unusually hard on this particular herd, the example illustrates the adverse affect they have on yak herding in Thak Khola. Heavy snowfall and avalanches are other big killers and in the winter 1981-82 many yak died due to these reasons.

The Thakalis usually keep a few chickens. Eggs are served to important guests and eaten by sick people and women after birth. Some households

Table 1: The number of orchards and apple-trees in Thak Khola

No of trees per orchard	Thini		Marpha		Tukche		Kobang		Iete		Kunjo		Total	
	No of orchards	No of trees	No of orchards	No of trees	No of orchards	No of trees	No of orchards	No of trees	No of orchards	No of trees	No of orchards	No of trees	No of orchards	No of trees
1- 49	103	1,575	87	1,459	36	722	55	969	83	928	50	296	414	5,949
50- 99	14	943	21	1,437	19	1,378	18	1,086	6	449	3	217	81	5,510
100-149	5	468	9	1,073	4	478	4	523	2	240	3	319	27	3,101
150-199	-	-	2	305	-	-	2	370	-	-	-	-	4	675
200-249	3	647	1	217	2	431	3	678	-	-	-	-	9	1,973
250-299	-	-	1	277	3	790	-	-	-	-	-	-	4	1,067
300-349	-	-	2	627	-	-	-	-	-	-	-	-	2	627
350-399	-	-	-	-	-	-	-	-	-	-	-	-	-	-
400-449	-	-	-	-	-	-	-	-	-	-	-	-	-	-
450-499	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500-	1	2,000	2	1,015	1	450	-	-	-	-	-	-	1	450
						600	-	-	-	-	-	-	4	3,615
Total	126	5,633	125	6,410	66	4,849	82	3,626	91	1,617	56	832	546	22,967

Source: Marpha Agriculture Development Farm, 1984

obtain an income by selling eggs and chickens to hotels. Due to tourism the demand for eggs and chickens has increased, and eggs cost 2.50 Rs and a large chicken 100 Rs. A few entrepreneurs have tried to establish poultries, but many chickens died due to sickness and the effort faded.

Waterbuffalo were introduced in the southern part of Thaksatsai in the 1970's and there are now more than a dozen animals in that area. In the 1980's villagers in Ghasa started rearing ducks.²⁰

Fruits and vegetables. In 1964 the Government established a small agricultural farm on the outskirts of Marpha. The farm has been a major success and fruits and vegetables are now a major source of income for many Thakalis. From a modest start, the farm now covers 8.5 ha, has 44 permanent staff members and several buildings, including a distillery.

Apple is the most important fruit. There are about 30,000 trees in the district and approximately 75 percent are found in Thak Khola. More than 30 varieties are grown and the main ones are golden delicious, red delicious and royal delicious. Apple cultivation is well suited to the ecological conditions in Paegau and the apples are of excellent quality. Conditions are different in the southern part of Thaksatsai and the apples there are not as tasty as further north. There are an estimated 3,000 peach-trees and 2,000 apricot-trees in the district as well, and almond, pear and walnut are also grown. The Government farm and some private farmers have tried to cultivate grapes, but the result has not been satisfactory and most farmers have ceased their cultivation.

Seedlings are available from the Government farm and a nearby private nursery at the cost of two rupees. Most farmers continue to cultivate grain between newly planted trees for about two years and then shift to vegetables. The apple trees yield fruit after three-four years and the annual production increases from an initial 20 kg to as much as 70 kg after eight years. The total apple production in Mustang District was an estimated 250 mt in 1983. The Government farm produced about 32 mt and the remainder was produced by private farmers, indicating the success of the entire enterprise.

In 1983 there were 546 orchards in Thak Khola with a total of 22,947 apple trees (Table 1). Considering that apple cultivation was introduced less than two decades ago this represents a major achievement - in fact more than half of all the households in Thak Khola have adopted this strategy. About 90 percent of the apple trees are found in Paegau and the northern part of Thaksatsai; there are only few big orchards in the southern end of the valley. Seventy-six percent of the orchards have less than 50 trees. Small orchards average 14 trees and are located next to the owner's house or in a nearby field. Only 9 percent of the orchards have more than 100 trees (but half of all the trees are found in these orchards). There are four plantations with more than 500 trees and the biggest has about 2,000 trees. Many of the big orchards are found in forest fields above Thini, Marpha, Cimang and Tukce. Households with big orchards far from

their old house often built a new house there to prevent the fruit from being stolen.

At present apple cultivation provides the owners of the small orchards with some extra income, but the owners of the big orchards receive a substantial income. In 1983 a dozen farmers produced more than five mt each and had an income of up to 40,000 Rs. Production has not yet reached maximum and future income from apple cultivation is expected to increase.

Villagers sell their apples to tourists, locals, the Government farm, a private distillery in Syang, a small fruit-processing plant in Tukce, and to traders. Apples cost four to seven rupees per kg in autumn, but up to 12 Rs per kg in spring. Following the rapid growth in production some farmers faced difficulties selling their apples in the early 1980's, but the situation has now improved. In 1983-84 seventeen cold storages with a total capacity of more than 200 mt were constructed under an UNDP assisted project (NEP/80/002 - Fruit Processing in Mustang) and it is now possible to keep apples fresh during the winter. The distillery at the farm uses about 25-30 mt of fruit for the production of liquor, and a private distillery in Syang is using about 20 mt. In addition, some private entrepreneurs buy apples in Thak Khola and sell them in Pokhara and Kathmandu. Finally, in 1982 the farm bought 22 mt of apples from local farmers (at 3.50 Rs per kg) for the production of alcohol and resale. The farm sold 25-30 mt of fresh fruits from its shop that year, and on the best day it sold 1.2 mt. Presently only an estimated 25 percent of the trees are giving fruit, but it is expected that the production will increase from its present level of 250 mt to 3,000 mt within the next ten years.²¹ If that projection holds, the apple growers will soon face a serious marketing problem. In order to address this problem fruit growers in Thak Khola have established their own association with about 150 members. Any farmer with more than 30 fruit trees upon a payment of 25 Rs admission fee can become a member. The association owns a small fruit-processing plant in Tukce which was established with assistance from UNDP (NEP/73/004 - Hill Agriculture Development Project).

In addition to fruit, the Government farm has also introduced a number of new vegetables. These are grown for home consumption and for sale to locals and hotels. Ecological conditions in Thak Khola are excellent for vegetable production. The Government farm has been producing high-grade seeds for several years and its research and development programme is being assisted by Switzerland and FAO (NEP/80/029/SWI - Vegetable Seed Production). Several farmers cultivate vegetable seeds as a cash crop and obtain an annual income of up to 20,000 Rs from it. In 1983 seed production in the district reached 10 mt, all of which was procured by the Agriculture Inputs Corporation.

Local Trade and Business

Salt trade. Until the early 1960's many Thakalis obtained an income from the salt-grain exchange between Tibet and Nepal. Much has been written about this trade up to 1962 and I shall describe how the trade operates today.²²

Briefly, trade traditionally operated in the following way. In summer northern traders brought salt and wool down to Thak Khola, using yak, jho, mules, ass, goats and sheep as transport animals. Due to the monsoon it is difficult to take animals south of Thak Khola in summer and the northern traders exchanged their salt in Thak Khola for barley and rice. In winter traders from the south carried rice to Thak Khola, but because of the cold it was difficult for them to go further north and they exchanged the rice in Thak Khola for salt. Due to their favourable geographical location Thakalis did not have to transport commodities to make a profit, only store them for a few months. Some Thakalis operated in this way, while others increased their profit by buying the salt further north and selling it further south using jho and mules as transport animals.

By the early 1960's the amount of salt which entered Thak Khola had been reduced and the salt trade lost its former importance in the economy of the Thakalis. This is attributable, in part, to inexpensive Indian salt entering the market in the south as well as to political developments in Tibet in 1959. At present only a few Thakalis trade in salt.

In the summer 1977 a trader from Lo arrived in Syang with a herd of goats and sheep carrying salt. At the start of his journey the trader had gone from Lo to Likche in Tibet where he had exchanged naked barley for salt at the rate of 28 pathi salt per 10 pathi barley. At the Nepalese custom office near the border he had paid 12 paisa for each pathi barley he had carried to Tibet and six paisa for each pathi salt he had carried south. In Pacgau salt was exchanged for barley at the rate of 16 pathi salt for 10 pathi barley, thus the trader obtained 17-18 pathi barley for each 10 pathi he had started with. In addition, the trader sold wool from his sheep as well as a few animals for slaughter. Although he had made a good profit, the trader complained that the business was not so good as in the old days. In the 1960's one pathi naked barley could be exchanged for 2½ pathi salt in Likche, and one pathi salt for one pathi barley in Tukce, and the profit had been almost double the present margin. Also, in the past it was possible to exchange all the salt in one day, but now he had to search for buyers in several villages and it took almost a week to exchange all the salt.

In December 1977 traders from Pacgau took their surplus salt on jho to Tatopani where they exchanged it for rice at the rate of 16 pathi salt for 10 pathi rice. The traders thus ended up with exactly as much rice as the amount of naked barley they had paid for the salt. In 1983 the rates had changed and in Thak Khola one pathi salt exchanged for one pathi naked barley. The Thakali traders made up for this increase by charging one pathi rice for one pathi salt in Tatopani, but the higher price made it difficult for them to find buyers. In 1983 Tibetan salt cost five rupees per kg in Thak Khola while Indian salt sold for 1.75 Rs per kg. Many villagers therefore use Indian salt for cooking, but due to a difference in the taste Thakalis prefer Tibetan salt for butter/salt tea.

Inn and hotel business in Thak Khola. An estimated ten percent of the households generate an income from inns (bhatti) where they sell alcohol to

villagers and provide travellers with food, drinks and a place to sleep. Some inns also sell cigarettes, matches, biscuits and other consumer goods. Until a few decades ago only traders, Thakalis from other villages and pilgrims stayed at the inns, but the clientele now also includes government servants, soldiers and tourists. Most Thakalis are willing to provide travellers with a meal and a place to sleep, but in each village there are a few well-established inns which travellers and villagers frequent. There are many inns along the caravan route, but in the remote villages such as Cimang, Naprungkhang and Taglung there are few and these are frequented almost exclusively by local villagers. In Pacgau many women run inns in the south during winter (see below). Seasonal migration is limited among the Thakalis of Thaksatsai, but some women temporarily establish inns along the Kali Gandaki in winter.

The inns' main income is from the sale of alcohol, while beer, tea and meals are of lesser importance. In Syang the most popular inn is frequented by many villagers and an occasional outsider. In 1977 the inn distilled $1\frac{1}{2}$ pathi barley almost every day, producing $4\frac{1}{2}$ litres of alcohol which sold for 76 Rs; the $1\frac{1}{2}$ pathi barley cost 26 Rs resulting in a net income of 50 Rs. Although this example does not consider the cost of wood and labour in the production and sale of alcohol, it is obviously a profitable business.

Relatively few tourists had visited Thak Khola by the 1960's, but their numbers increased dramatically in the 1980's, and during the period 15 July 1980 to 14 July 1981 a total of 6,545 tourists visited the valley. This makes Thak Khola (and the Everest region) the most popular trekking destination in Nepal. Some trekkers come in groups organized by agencies in Kathmandu which provide tents, porters and food. Others are individuals who stay and eat in local hotels. Although group trekkers, in general, are older and better off than individual trekkers, the latter are a more important source of income to the local hotel owners. Tourists trek along the caravan route and there are many hotels in Jomsom, Marpha, Tukce, Kobang, Larjung, Lete and Ghasa. Very few tourists visit the villages away from this route and in these villages there are no tourist hotels. Following the increase in tourism in the 1970's some Thakalis upgraded their old inns while others built new hotels. For example, in 1972 there was only one inn at Jomsom Airport but a decade later there were five tourist hotels in addition to four in Jomsom itself. Hotel size and standard varies (there are no hotel of international standard). The best ones offer clean private rooms, hot shower, good Nepalese and Chinese food, excellent service, and electricity. Others are lower quality with a cuisine and service inferior to that offered in most village inns. Many owners of the big hotels obtain their main income from this business and in 1983 the owner of one of the big hotels had a net profit of about 50,000 Rs from his hotel.

In addition to their regular business most inns sell cigarettes, matches, biscuits, sweets and the like, and hotels sell beer, soft drinks, canned food, toilet paper and other tourist goods. There are also regular shops which sell consumer goods, such as foodstuff, kitchen utensils, tools, torchlights, batteries, matches, cigarettes, kerosene, cooking oil, paper,

soap, pens, thread, needles, etc. The biggest shops are in Jomsom and other villages along the caravan route. Jomsom is not only a traditional trading center but is also the main administrative center, and the shops there sell to local Thakalis, government employees and villagers from the north. The biggest shops are looked after by a person on a fulltime basis and usually provides the household with their main income (in 1983 one of the big shops had an estimated annual net income of about 50,000 Rs).

In smaller villages away from the caravan route shops are usually 'hidden' inside the house and the selection of goods limited. These shops provide owners with an extra income but the profit is only a few thousand rupees a year. While the big shop owners buy their goods in the south and have it transported to Thak Khola, small shop keepers also buy from southern traders visiting Thak Khola and from the big shops in Jomsom and Tatopani. The Thakalis are used to a free market where prices are determined by supply and demand, but the Government has introduced maximum prices on some consumer goods, and in one instance a Thakali shop owner was jailed for a few days for having charged too much for his matches.

Contracting and other business. Since the 1970's the Government and foreign donors have funded various construction works in Thak Khola, including army barracks, government offices, a refugee camp, a 240 kW hydropower plant, bridges, portable water supply systems, irrigation systems, trail improvement and an extension of the airport. Most of the projects have been executed by a handful of local contractors, mainly from Marpha. Main contractors usually subcontract the work (who themselves employ small contractors) and in the end the actual cost of the work is often half the amount of the main contract. In the 1970's the biggest contracts (excluding the hydropower plant which cost 13.3 million Rs) amounted to no more than one million rupees, but the USAID financed Resources and Conservation Utilization Project (RCUP) is presently undertaking a major construction programme in Thak Khola (including an administrative building complex in Jomsom which costs 8.3 million Rs). Construction business is now one of the major sources of capital inflow to the valley and provides a major source of income to a small number of local contractors. Some Thakalis contract to transport foodstuffs to the army in Jomsom and Kaisang.

Electricity was introduced in Thak Khola only recently and industrial development is limited. There is an oil mill in Kobang which was established more than a decade ago for 80,000 Rs. There is also a few furniture workshops which produce and sell tables, beds, chairs and shelves to government offices and tourist hotels. In Jomsom there is a photo-cum-signboard painting shop. There is one private distillery in Thak Khola and two more are under construction. The distillery is located in Syang and is owned by two major and five minor shareholders from Marpha who have invested 445,000 Rs in land, buildings, equipment and working capital. The distillery started operating in 1982, and in 1983 it sold about 10,000 litres of liquor and had a net profit of 70,000 Rs, but future production is expected to increase. In Chairo there is a carpet factory which originally belonged to a Thakali but which now is owned by the Tibetan refugees working there. Two Thakali

brothers, one of whom is living in Pokhara, have been operating weekly charter planes between Pokhara and Jomsom for several years.

Hotel owners occasionally assist guests and are given money and presents. In 1980 a man in Jomsom rented out his hotel to an Italian film crew for 1,500 Rs a day. The crew paid him another 50,000 Rs to make a bridge over Kali Gandaki and within a few days the hotel owner had subcontracted the bridge for 25,000 Rs - and made 25,000 Rs in profit. (The bridge could have been useful to the local people but was dismantled and shipped to Rome !) The sale of 'Tibetan antiques' (made recently in Nepal and India) to tourists is in the hands of the Tibetan refugees from Chairo. There seems to be no limit to the ideas of the local entrepreneurs. In 1982 (before electricity was introduced) a hotel owner in Jomsom bought a video set and started to show films to villagers, government employees and army personnel using a generator. There are now three public video sets in Jomsom and villagers pay five rupees for a show. The programme includes mainly Hindi movies, but 'Gandhi' has also been shown.

Business Outside Thak Khola

Thakalis have for centuries been middlemen in the salt-grain exchange between Tibet and Nepal. Some Thakalis traded in these commodities without leaving the valley while others travelled to the north with rice and barley, and/or to the south with salt and wool. In connection with this trade some Thakali women moved south in winter where they ran small temporary inns along the routes serving Thakali traders, their employees and Gurung and Magar soldiers on home leave. This picture has now changed. Most of the men who leave Thak Khola in winter have mules which carry grain and other goods on a contractual basis from the highways to bazaars in the hinterland. Women still operate inns along the old caravan routes, but also settle in Pokhara and along the highways to serve bus passengers. Seasonal migrants leave Thak Khola after the harvest of the summer crops in October/November and while they formerly returned²³ in March, they now return in May before the harvest of the winter crops.

The extent of seasonal migration is high among the Mowatan and Yhulkasompaimhi Thakalis (in 1977 fiftyfive and 37 percent of the population, respectively), but low among the Tamang Thakalis (21 percent of the population in northern Thaksatsai and 11 percent in the southern part).²⁴ This is because these groups traditionally pursue different economic strategies, and may relate to higher foodgrain production per capita in Thaksatsai than in Pacgau.

The frequency of seasonal migration by sex and age among the Syangtan Thakalis is presented in Table 2 and indicates two main points. First, the frequency is higher among women than among men. Secondly, the number of seasonal migrants is highest between the ages of 20-39. Old people do not like to live in the south or to be away from their home during the Torenla festival. Young people, on the other hand, prefer to spent winters in the south which is warmer and more exciting than Thak Khola. Another reason is

Table 2: Seasonal migration among the Syangtan Thakalis (1983-84)

Age group	Males	Females
- 9	36	43
10 - 19	38	52
20 - 29	57	75
30 - 39	54	54
40 - 49	26	41
50 -	18	13
Total	38	47

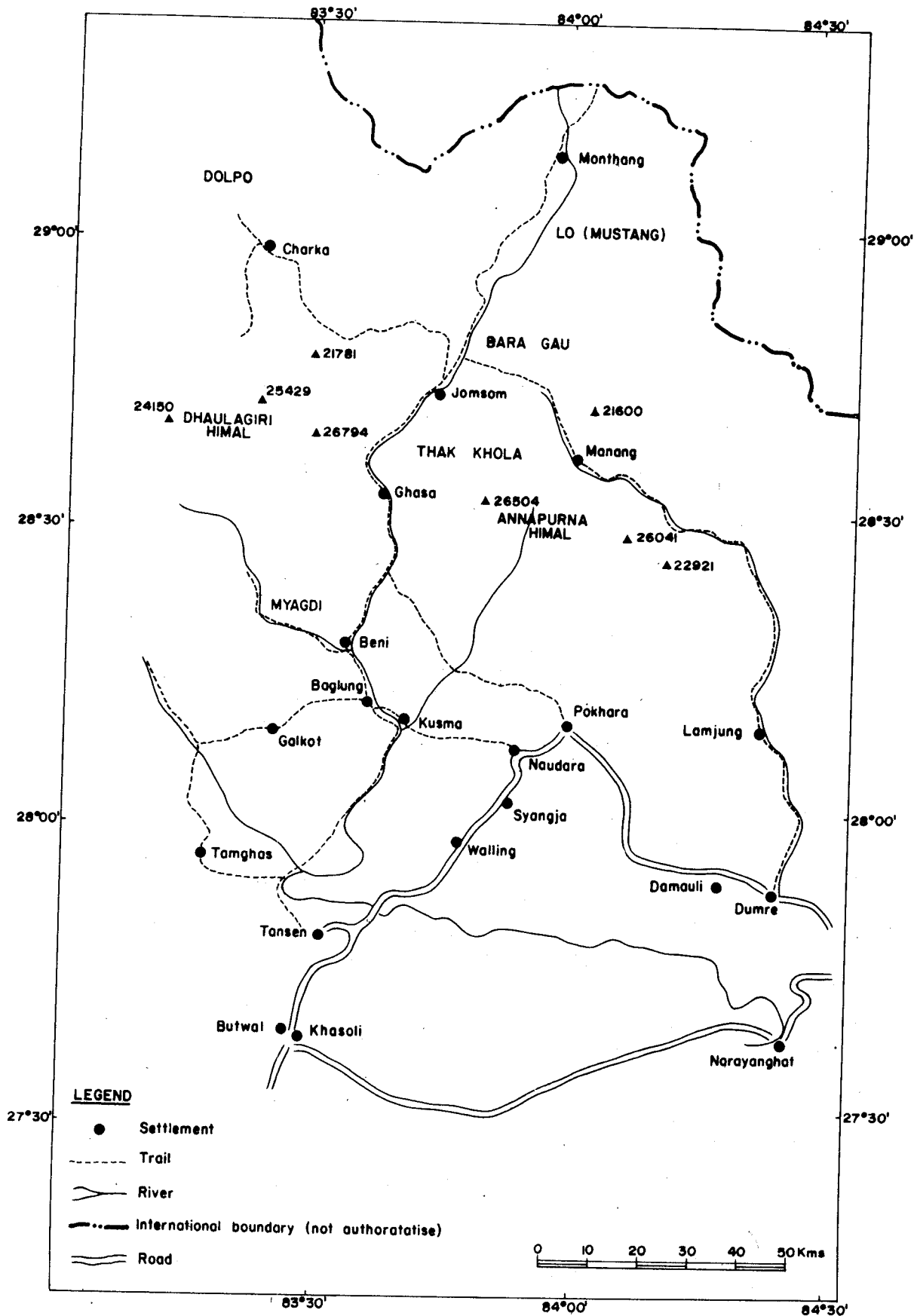
Figures indicate percentage of seasonal migrants in relation to the total number of population.

that old people have more land than young ones, and because of the need for manure they invest in goats and yak as cash-crop animals (while young men without much land prefer to invest in the more profitable mules). Also, visitors at the inns prefer to be served by young attractive women, rather than older ones.

Mule business. In Pacgau mules are the single most important source of cash income for many households. In 1983 there were 320 mules in Syang and the net earning from these animals was an estimated 700,000 Rs, or about 1,500 Rs per villager. Ownership of mules is not limited to only a few households and in 1983 one third of all households in Syang had mules. There are also many mules in the other villages of Pacgau (290 in Marpha, 160 in Thini, 130 in Jomsom and 30 in Cimang in 1977). In Thaksatsai there were a total of 110 mules in 1977.

The Thakalis operate mainly on the Naudara-Baglung-Beni/Galkot route and the trails east of Pokhara (e.g., Dumre to Lamjung). Men from Syang are found almost exclusively on the former route while those from the other villages also operate east of Pokhara. Few Thakalis operate on the Pokhara-Jomsom route and most of the mules found there belong to people from the north. The mule owners occasionally shift to new routes when the profit is higher. For example, in the winter 1979-80 some mule owners began to operate on the Tansen-Tamgash route where the rate was 131 Rs per 100 kg as compared with 114 Rs per 100 kg on the Naudara-Baglung route, although a round-trip takes four days on both routes.

Muleowners contract with shopkeepers in the hinterland and businessmen who have contracts with Nepal Food Corporation, Agriculture Inputs Corporation, and other corporations to bring rice, salt, fertilizer, sowseed, cement and other goods to the bazaars in the hinterland. The mule owners usually do not buy and sell the goods their mules carry²⁵ and are therefore



transporters, not traders.²⁶ While the Thakali mule owners have to invest in mules to make a profit, the contractors make a profit without much investment and work. For example, one businessman who had a contract to transport 400 mt of grain at the rate of 130 Rs per 100 kg paid the mule owners 115 Rs per 100 kg, and thus made 60,000 Rs in profit. The Thakali mule owners are aware of this and some have started to take contracts directly from the corporations.

Mules are looked after by household members or hired labour. Households with young unmarried sons, and young men who have taken a loan to buy mules usually look after their own while others often hire labour. In 1972 the extent of hired labour was limited and the hired mule drivers were mostly poor Thakalis, men from the north and a few men from the occupation castes. The extent of hired labour has increased in the past decade and most of the mule drivers are men from the south. In Syang 64 percent of the herds (42) are looked after by hired labour, and 78 percent of the hired mule drivers are from the south. In one case three brothers and a sister-in-law (widow of the eldest brother) have a total of 45 mules (9, 21, 7 and 8, respectively). In winter only the brother with 21 mules lives in the south and looks after six southern men who go with the mules (his brothers and sister-in-law stay back in Thak Khola).

The profit made by the mule owners is illustrated in the following example. In April 1983 a mule owner had six mules operating on the Naudara-Baglung sector where a round-trip takes four days. Although he did not walk with the mules himself, the owner made a net profit of about 100 Rs a day. The mules carried a total of 500 kg at the rate of 140 Rs per 100 kg and the gross income was thus 700 Rs. The mules were looked after by a hired labourer who received a total of 120 Rs in per diem, and expenses for his salary and clothes amounted to an estimated 27 Rs. The mules were each given six mana of maize daily and the total cost of the maize was 153 Rs. In total, expenses amounted to 300 Rs and the net profit for the four-day period was thus 400 Rs. The net profit made during a typical six-seven month winter season is, however, lower than indicated in this example, about 2,000-2,500 Rs per animal. This is because the mules sometimes rest during heavy rainfall and the price of maize may rise and the rate of transportation may fall. In addition, mule owners are fined when their animals destroy crops in the fields. Owners can, however, increase their profit by accompanying the mules themselves and by increasing the number of animals in the herd to eight or nine.

Most mules are imported from India and a three-four year old animal cost about 6,300 Rs in Thak Khola in 1983. They live for about 15 years but animals are occasionally killed by forest leopards, or die due to sickness or a fall. If a owner of six animals loses one in the beginning of the winter season he is still able to make a profit, but if he loses another animal he will experience a loss.

In October mules make one or two trips to Pokhara to transport rice for the owner's household, and from November to the beginning of June they stay

permanently in the south. In summer mules graze on the pastures which allows them to relax and heal their sores. Mule owners are aware that their animals need good pasturage and rest in summer to regain their strength, but if they have no jho they use their mules for two-three weeks to carry wood and pine-needles from the forests to the village. People occasionally let their mules work on a commercial basis in summer. In 1983 a mule owner used his seven animals to transport clothes and grain to Dolpo and wool back for a businessman from Baragau, making 3,150 Rs. The mules spent several days grazing along the route and the trip therefore took five weeks. In the early autumn the mules carried wool down to Pokhara for the same businessman, making another 2,450 Rs.

Inn business. The women who migrate south in winter leave Thak Khola in October after the harvest of the summer crops and return by the end of May for the harvest of the winter crop. Women run inns at the bus stops along the highways and along the main caravan routes in the hills of Dhaulagiri, Lumbini and Gandaki Zones. Women from Syang are found mainly along the highway between Pokhara and Bhairawa (Pokhara, Naudara, Syangda, Walling and Khasauli) and along the route from Naudara to Baglung, while the women from the other villages of Pacgau also operate along the highway and caravan routes east of Pokhara. Until recently women from Pacgau also stayed near the military camps in Taulihawa (which has now closed down) and in Gorakpur (India). In the winter of 1975-76 most of the migrant women from Syang stayed in Khasauli and operated a total of 12 inns; additionally, women from Syang married to southern men and settled permanently in the south had another four inns. Following the opening of the highway between Bhairawa and Kathmandu via Narayanghat, business in Khasauli and Walling has diminished and the majority of the women from Syang now operate on the Naudara-Baglung route.

Women establish their inns in small rented houses or build temporary huts, but a few rich families have their own house in the south. Inns are run by one or two adult women, usually married sisters or sister-in-laws. Most women have a young local girl or one from their home village to help them whom they give food and 15-20 Rs a month as salary.

The inn business is based on the sale of meals, alcohol, tea, meat and snacks. Along the caravan routes customers are mainly Thakalis and mule drivers, while bus passengers are important customers along the highways. In Walling many buses made a lunch break in 1975 and occasionally stopped for the night. Regular customers got a discount, and bus drivers were given a free meal if they parked the bus in the front of an inn and got the passengers to eat there. The sale of alcohol is an important source of income for the inns, and in the towns and along the highways truck drivers and others visit the inns to get drunk. Along the caravan routes mule drivers visit the inns in the evening and drink a few glasses of alcohol. Some inns occasionally make a good income from soldiers from the British and Indian army who return on home leave to Nepal and want a few good days before going back to their village. The profit the women bring back at the end of the season varies between 500 and 3,000 Rs.

Miscellaneous business outside Thak Khola. Most of the men who spend the winter in the south walk with mules, or stay in their wife's inn (perhaps looking after their mules). Some men have contracts to transport goods from the towns along the road heads to the bazaars in the hinterland. Some nuns and lamas travel to Gurung villages in winter and make an income as ritual specialists. It is extremely rare to find Thakalis who work as manual labourers in the south in winter. The Thakalis do not like to breed hybrids and some men travel to India to buy mules for their own use and for sale in Thak Khola. Thakali traders occasionally travel to Kalimpong to buy tea and other goods for sale in Thak Khola. Many people from Baragau trade sweaters in India during the winter season but only few Thakalis are engaged in this business.²⁷ People from Manang (and now from Baragau, albeit to a lesser degree) travel to Southeast Asia for business. The Thakalis of Thak Khola are not regularly engaged in this business, but a few villagers have been on such business trips (usually arranged by Mananggi friends).

Some Thakali households (especially in Thaksatsai) include one or more male members who have been living in the south for several years. Some have their own business while others are in the British, Indian or Nepalese armies, Government service, or work for Thakalis living in the south. Many eventually establish their own independent households in the south and thus become semi-permanent or permanent migrants. Some have a good income and send money back home on a regular basis. Others are less lucky and in one instance a young man from a rich family lost 80,000 Rs on a contract.

Sale of Labour

Some Thakalis are civil servants who work as school teachers, technical assistants, panchayat secretaries, peons, etc. while others work for quasi-government corporations. The civil servants working in Mustang District receive a 100 percent hardship allowance in addition to their base salary, and gross salaries are high (for example, a primary school teacher who has passed the School Leaving Certificate examination made 510 Rs a month in 1981). The job of school teacher is attractive for young educated Thakalis, especially women, because it gives status and it is not hard manual work. In addition, there are many holidays and short working hours (in winter from 10 a.m. to 3 p.m.) and school teachers have sufficient time to assist on the family farm or business.

A few Thakalis are soldiers in the British, Indian or Nepalese armies. The soldiers in the British Army have very high salaries and usually retire with substantial savings. Soldiers on home leave from Hong Kong make an extra income by bringing back radios, watches, sarees, etc. for sale in Nepal. In one instance a Thakali soldier brought too much and was dismissed from service.

The post of village headman, village secretary and village worker are social obligations and carry little or no remuneration (for example, the secretary to the village council in Syang was paid 301 Rs a year in 1981). In 1977 the people of Syang built a water supply system with assistance from

the Government and UNICEF. Some villagers were trained to maintain the system and in 1981 a man took the job himself and was paid 1,340 Rs a year from the village treasury.

Some Thakalis make an income by providing specialized service to other villagers and many carpenters and a few ritual specialists acquire their main income from this work. The sale of labour is an important source of income for poor Thakali households and members work as daily labourers and as long-term herdsmen and general helpers for other Thakali households. Poor Thakalis occasionally work as porters for tourists trekking to Pokhara (in 1984 a porter received 40 Rs a day excluding food). Households in need of labour request close relatives to work for them for a few days and although this is a social obligation, relatives (except for children and their families) are paid the standard daily wage. Consequently even rich households occasionally obtain a small income from the sale of labour.

Miscellaneous Ways to make an Income

In addition to the sale of goods produced by the household, trade and business, and the sale of labour some Thakalis make an income from rental of fields and houses. Households with a surplus of fields in relation to their labour resources usually hire labour rather than renting out surplus fields, and only a few households have a major income from the rent of fields. As mentioned earlier, almost all Thakalis own the house in which they are living and the renting out of houses is traditionally limited. Government departments and quasi-government corporations rent houses for official use, and many houses in Jomsom are partially or fully rented out. The monthly rent for a good house is about 600 Rs but one house at Jomsom Airport is rented for more than 2,000 Rs a month. Many households in Jomsom and Thini (and some in other villages) rent out rooms to government employees and army personnel, charging 70-100 Rs a month for a room. In all villages rich household lend money to villagers in need of cash. Most of the moneylenders have lent less than 10,000 Rs, but some others have more and make a good income from the interest. People occasionally sell resources (land, houses, animals and jewelery) but usually only if they need capital for investment or to repay a loan. Another source of cash is by taking a loan. Also, at some stage in their life all Thakalis receive property in inheritance or as dowry.

Gambling is another way to obtain cash. For example, the price for hitting the bull's eye during archery contests occasionally exceeds 1,000 Rs. Gambling with cards takes place only during the main festivals, but a few Thakalis gamble more regularly and win (or lose) hundreds of rupees in a single night. Finally, some Thakalis have made money by travelling abroad on tours sponsored by foreign governments, foreign non-governmental organizations, and private individuals.

VARIATIONS IN ECONOMIC STRATEGIES

The previous section dealt with the various means employed by the Tha-

Table 3: Economic Strategies according to Economic Class, Syang 1981

Source of Income	Economic Class			
	Rich (N=39)	Middle (N=41)	Poor (N=26)	Total (N=106)
Grain Sale	46	5	0	19
Goats/Yak	36	7	15	20
Mules	46	30	12	33
Inn in the South	49	46	46	47
Inn/Shop in Thak Khola	26	7	0	12
Other Business	13	5	4	8
Sale of Labour	0	15	70	23
Income from Loans	51	0	0	19

Figures indicate the percentage of households of a particular class engaged in the economic strategy concerned.

kalis to generate an income for the purchase of goods and services. Few references were made to individual differences, however, and the present section will examine variations in individual household economic strategies by economic class.

In rural Nepal studies, households are usually classified into economic categories either on the basis of landholdings or grain production in relation to food needs.²⁸ This would be misleading in a study of the Thakalis, however, because a major portion of household income comes from non-agricultural activities. For example, only half of the rich households in Syang have a substantive income from the sale of grain. A more accurate approach is based on knowledgeable key-informants classification of the households in their village. It is then possible to proceed with an analysis of the economic strategies employed by the households of each class.

In 1981 there were a total of 106 households in Syang, of which 39 (37 percent) were classed as rich (Table 3).²⁹ They had a sufficient income and faced no immediate economic problems.³⁰ Half of the households had a substantive income from the sale of grain. Cash-crop animals were an important source of income and 46 percent of the households had mules while 36 percent had goats or yak (39 percent had one herd of these animals, 10 percent had two herds and 13 percent had three herds). Half of all households had an income from inn business in the south, while a quarter had a shop or an inn in Thak Khola. Thirteen percent of the households had an income from other sources, such as the sale of wood, apples, and vegetables, business, or government service. Twenty percent of rich households had no major income from the sale of grain and cash-crop animals, but had a substantive income from inns, shops or other business. Half of the rich households had an income from money lending. Five percent of rich households had taken loans to supplement their own capital for the purchase of major investment goods.

Members of rich households did not work for others on a wage basis, but as a social obligation they occasionally worked for relatives in need.

Forty-one (39 percent) of all households were categorised as middle-class. In half of all households one or more women ran an inn in the south in winter and 30 percent had a herd of mules. Other sources of income were of minor importance: 5 percent of the households had an income from the sale of grain, 7 percent from goats/yak, 7 percent from an inn/shop in Thak Khola, 5 percent from other business and 15 percent from the sale of labour. Forty-four percent of the households had taken loans, mainly to invest in mules; none were moneylenders.

Finally, 26 (24 percent) households were classified as poor. These households had little capital and 70 percent had to sell their labour to subsist. Another important source of income was inn business in the south. 27 percent of the households had goats or mules, but these had been procured through loans which required paying high interest rates. A total of 58 percent of the poor households has outstanding loans for either investment purposes or financing daily household expenses, e.g. marriage ceremonies.

To summarize briefly, economic strategies generally vary by economic class. Moneylending, sale of grain, raising of goats/yak, and inn/shop business in Thak Khola are strategies pursued mainly by rich households, mule business is pursued by rich and middle-class households, and the sale of labour by poor households. Inn business in the south is pursued by half of the households and is not restricted to any particular economic class.

Although there are many exceptions, the social structure of the households relates to some extent to economic class. The 'typical' rich household is an old well-established family where the head has inherited his full share of the paternal property and where adult sons/daughters have contributed to the welfare of the household. The middle-class family consists most often of a young family where the husband has received only a part of the paternal estate and where children have not made any substantial contribution to the household. Poor households often consist of single persons.

These findings and conclusions are drawn from Syang village, but all over Thak Khola the economic strategies varies, in general, according to economic class. The economy in Pacgau is similar to that of Syang, although inn/shop business and other business are more important in Marpha and Jomsom than in Syang. There are some differences between Pacgau and Thaksatsai with regard to the importance of individual strategies. For example, the sale of grain is a much more important source of income in Thaksatsai than in Pacgau. On the other hand, mules and inn-business in the south are of marginal importance in Thaksatsai.

DIKUR: THE TRADITIONAL SAVING AND CREDIT ASSOCIATION

Most Thakalis keep anywhere from a few hundred to a few thousand rupees

in their home as accessible capital, but seldom more due to the risk of having it lost and because such money does not earn any profit. Surplus capital can be invested in several ways, e.g., lending money out to other villagers, purchasing jewelery, animals and land. Thakalis can also establish a savings account in the local bank, but this is done by only a handful of businessmen who wishes to avoid keeping large amounts of money in their homes. Finally, people can invest capital by participating in a local voluntary rotating saving and credit association (dikur).

Similarly, there are many ways to obtain a loan, e.g., from local money-lenders, from funds belonging to temples, villages and patrilineal descent groups. Still another is to participate in a dikur. In addition to these traditional sources loans can be obtained from the Agriculture Development Bank (ADB), Nepal Bank Ltd., and Nepal Industrial Development Corporation (NIDC). These credit institutions require collateral against loans and it is difficult for poor people to use them. Initially only rich and educated Thakalis used these credit sources, but now others are using them as well. ADB disbursed 3.4 million Rs in Mustang District during the five year period 1975/76-1979/80; officially 38 percent of the loan were for agro-industries and warehousing, 37 percent for poultry and livestock, 23 percent for horticulture, and 2 percent for other purposes.³¹ Although ADB is a major credit source dikur are still widely used. The form and function of the associations are set out below.

Form and Modus Operendi

Anyone planning to set up a dikur first contacts relatives and friends whom he thinks would be interested in participating. As a sign of respect he places five paise in the front of them and explains the dikur, i.e., the number of members, the size of the first installment, etc. When a sufficient number of persons have agreed to participate (usually no less than 21 persons) the founder invites them to his house for a meeting. The members first discuss and agree to the rules of the dikur which then are written down. Members then nominate one or two members as head of the dikur. It is their duty to see that the rules of the dikur are followed and to keep account of the money paid and received by the dikur.

The following hypothetical example illustrates the modus operendi of the dikur. The dikur has 31 members who make an initial installment of 200 Rs. Meetings take place twice a year and the increment is ten percent per annum (the interest on the shiku fund (see below) is also ten percent). The founder of the dikur pays this money out of his own pocket, while others can deduct it from their bids. Individuals who receive the funds have to give other members a glass of alcohol which represents an expenditure of 60 Rs.

At the first meeting everyone except the founder (A) pay 200 Rs. A receives 5,990 Rs after having paid 10 Rs to the heads. Members who wish to receive the second fund then start bidding; in this example B bids highest, 2,010 Rs.

At the second meeting all members (except B) each pay 210 Rs. After deducting the amount of his bid (2,010 Rs) B is given 4,290 Rs. From the bid of the 2,010 Rs, ten rupees are given to the heads while the balance is placed in a special fund called shiku.³² In the bidding for the third fund C bids highest (2,210 Rs) and is given the money in the shiku.

At the third meeting members (except C) pay a total of 6,600 Rs. After deducting the 2,000 Rs which C received in the shiku, 100 Rs in interest and 2,210 for the bid, C is given 2,290 Rs. In total he has received 4,290 Rs. The remaining 4,310 Rs is once again placed in the shiku after 10 Rs has been deducted for the heads. Bidding for the fourth fund follows and D bids highest (namely 3,210 Rs) and is given the 4,300 Rs in the shiku.

At the fourth meeting all members (except D) pay a total of 6,900 Rs. D receives none of this money, but has to pay 825 Rs, i.e., the difference between the amount of the fourth fund (6,900 Rs) and the money he received from the shiku (4,300 Rs), interest on the shiku (215 Rs) and the amount of his bid (3,210 Rs). In total, D receives 3,475 Rs. After deducting 10 Rs for the heads the shiku amounts to 7,715 Rs. The shiku thus exceeds the amount which should have been collected at the fifth meeting (7,200 Rs) and is given away at the fourth meeting. Members who wish to receive the shiku then start to bid and E bids the highest (2,300 Rs) and is given 4,600 Rs which is the difference between the amount paid at the fourth meeting (6,900 Rs) and his bid. After E has received his money the shiku amounts to 3,115 Rs and the bidding for the fund at the fifth meeting starts. F bids highest and receives the shiku.

The association continues in this manner until all members have received the dikur or the shiku once; it is then dissolved and what remains in the shiku is divided equally amongst the members.

Variations

Originally dikur utilized grain and money dikur were introduced only later.³³ In 1981 there were grain dikur in Jomsom and Thini while those which existed in Syang in 1972 had ceased. There has not been a grain dikur in Thaksatsai for many years. All grain dikur use naked barley which is the traditional cash-crop in Pacgau. None use sweet buckwheat which is used for household consumption and usually not marketed. In addition, the harvest of sweet buckwheat occasionally fails (as in 1982 when the entire crop was destroyed in Syang) while this is not the case with barley.

The total number of dikur in Thak Khola did not exceed 30-40 in 1981.³⁴ Dikur are found in all major villages, e.g., in 1981 there were six dikur in Syang, five in Kobang and three in Larjung.

Grain dikur usually consist of ten to fifteen members while money dikur have no less than 21 members. In dikur with high payments two or more persons may hold one share, and it is possible for one person to hold two shares in the same dikur.³⁵ Membership is not limited to the people from one

single ethnic group or village, e.g., people from Marpha participate in dikur in Syang and Thini. Dikur members are usually men, but widows and single women also participate. If a member dies his rights and obligations are inherited by his heirs.

In 1977 most new dikur had an initial payment of about 500 Rs (while it was about 100 Rs for the old ones).³⁶ The yearly increment is 10 (or 20) percent in grain dikur and 10 percent in money dikur. The grain dikur originally had no increment, and examples can be found in Baragau. Meetings are held annually in grain dikur and bi-annually in money dikur and in Pacgau they usually fall around November and May because of seasonal migration. Meetings often take place on the 10th and 15th of the month which are considered auspicious days. Many Thakalis observe Saturday or Sunday as the day to refrain from giving away money and other goods (ale nimā) and meetings are usually not scheduled on these days. The founder always receives the first fund but other members may also be nominated. In grain dikur the order of rotation is determined by drawing lots and in money dikur by bidding. Bidding usually takes place as described above, but a tender system has recently been introduced where members submit their bids in sealed envelopes before or at the meeting.

As mentioned above, the dikur has one or two heads. The main duty of the head originally was to ensure the grain given by members was good quality. The head did not receive any remuneration for his work, but the meetings took place in his house and he had a small income from alcohol sales. The heads now receive a small payment for their services e.g., in one dikur each head receives five rupees per meeting while in another they receive one percent of the total installments.

Meetings may take place in either the house of the leader or the fund-receiver. If a member cannot attend, he sends someone with his installment. To ensure that they pay their installments members are required to have a guarantor, usually before they receive the dikur or the shiku. A guarantor should be acceptable to all members, any of whom have the right to reject a candidate. In some dikur members may stand as guarantors for each other. Members usually have a close relative as their guarantor, e.g., father, brother, father's brother, cousin, father-in-law, or brother-in-law. If a member fails to make his payment the fund receiver may agree to receive it at a later date, but if he insists the guarantor has to make the payment. In such a case the guarantor can claim a field or other property worth the same amount as the installment. Informants from Syang and Thini state that members have always made their installments and, if necessary, they take loans or sell capital goods to raise installment money. As described below, however, there have been problems in other villages.

The Socio-Economic Role

All anthropological studies of the dikur have described it in positive terms and state it has helped the Thakalis become successful businessmen.³⁶ I agree that the dikur system in general has a positive socio-economic

function, but the negative aspects have been overlooked. In the old grain dikur there was no increment and bidding, and all members paid and received exactly the same amount of grain. Needy members received the fund before wealthy ones and the system, therefore, benefitted the poor. The introduction of increments and competitive bidding changed this - dikur now mainly benefit the receivers of the last funds, the rich.

With increments the receiver of the first fund gets less than the later ones. For example, if a grain dikur has ten members and an initial payment of ten pathi with an increment of two pathi per yer, the founder receives 100 pathi and the taker of the last fund 280 pathi, both against a payment of 190 pathi. The founder is a needy person and in some dikur he pays no increment, but even so, the receiver of the last fund gets more. In the above example, the receiver of the last fund would get a total of 262 pathi and the founder 100 pathi against a payment of 190 and 100 pathi, respectively. Some dikur have rules which further benefit the takers of the last funds, and in ³⁸one dikur members pay an increment only after they have received the fund. Bidding also benefits receivers of the last funds. Rich members wait until the end to take the dikur when there is little bidding and these are low, while poor members in need of capital compete against each other in the beginning of the dikur when bids are as high as 30-40 percent of the fund to be received. To avoid this members may agree not to bid against each other and to share the fund amongst themselves. The founder is always nominated for the first fund and does not have to bid, but dikur may require nominated members to pay an amount for their nomination. Finally the rich may exploit the poor by standing as ³⁹their guarantors, charging up to 20 percent of the fund to stand security.

In sum, dikur originally benefitted the poor in need of capital, but the introduction of bidding and increment has changed this and dikur now usually benefit the takers of the last funds, the rich. From having begun as credit associations which provided the poor with cheap capital, dikur are now more like saving-associations which provide the rich with a high profit on investments. Whom the system benefits depends, of course, on the actual increment and bidding as well as market interest rates. The system benefits the takers of the first funds when increments and bids are low, and the takers of the last funds when increments and bids are high.

People bid high for the dikur when they lack alternative credit sources. Also, members trust that they can invest their dikur money and make a higher profit than the price they paid for the dikur. This has actually been the case for most of those who invested their money in mules; and in Kathmandu a Thakali invested his dikur money in land a decade ago, making a small fortune with the rapid rise of land prices there.

In spite of these changes the main objectives of the dikur system, i.e., to provide immediate help to the founder, has not changed. For example, in Thini a man lost five mules and in order to buy new ones members of his clan established a dikur to provide the necessary capital.

Some Thakalis are concerned the rich benefit rather than the poor and have suggested new dikur should be designed to benefit the needy. In Thini some muleowners have established a dikur which functions as an insurance system where members who loose mules are nominated for the next fund. In Kathmandu some Thakalis once suggested establishing a dikur where members would be classified into three economic categories, and where the rich would pay higher installments than the poor. The idea was rejected because others argued such an economic classification could lead to social stratification among the Thakalis.

Anthropologists have noted that dikur maintain cohesion within Thakali society and foster economic cooperation in the community.⁴⁰ These observations are correct - as long as the system works well. Several decades ago, a number of dikur members in Marpha (and even their guarantors) were unable to pay their obligations and fled from the village. Village leaders subsequently forbade the establishment of new dikur within the village, and anyone who broke the rules was to be fined 500 Rs. Villagers were, however, free to take part in dikur outside the village. Similarly, Tamang Thakalis faced problems with the dikur system and in 1959 the thirteen headmen of Thaksatsai temporarily forbade the formation of new dikur.⁴¹

EMMIGRATION

In 1977 there were a total of 290 Tamang Thakali, 124 Mowatan Thakali and 234 Yhulkasompaimhi Thakali households in Thak Khola. In addition, Thakalis are found in the hills and plains south of the valley. In 1977 informants from Thak Khola recalled a total of 174 Tamang Thakali, 86 Mowatan Thakali and 10 Yhulkasompaimhi households having left the valley since 1960. Due to recall problems these figures are obviously on the low side. Many of the Tamang Thakalis who live outside Thak Khola are descendants of emigrants who left Thak Khola prior to 1960, and it is estimated that a total of 820 Tamang Thakali households are found outside Thak Khola.⁴²

Emmigrants form a complex group according to economic status, occupation, location, etc., and it is outside the scope of the present article to present more than a few observations on the causes of emmigration.⁴³

In the first half of the 19th century many poor Thakalis left Thak Khola because they were unable to pay their share of the high village taxex, and by 1862 some 216 Thakalis families had left and settled in Kaski, Lamjung and other hill areas.⁴⁴ Not all emmigrants left because of high taxes. According to informants, in the 1870's a Thakali from Larjung obtained a contract for mining in Myagdi and a number of the Thakalis who worked for him settled there permanently. Furthermore, in the first half of the 20th century many Thakalis left Thak Khola and established themselves as agriculturists, businessmen and inn-keepers in Dana, Tatopani, Beni, Baglung and other bazaars along the main trading routes south of Thak Khola.

In the 1960's and early 1970's a large number of Tamang Thakalis and Mowatan Thakalis left Thak Khola and settled in Kathmandu, Pokhara, Butwal,

Bhairawa and other urban centres, as well as along the trails and highways connecting Pokhara with Kathmandu and Bhairawa. Manzardo has observed that

"...the Thakalis were unable to grow sufficient crops to meet their yearly needs, using traditional agricultural methods. Therefore, the Thakalis were forced to find ways to bring in additional grain from the outside...(and)...engaged in the trans-Himalayan trade based on the exchange of grain from the middle-hills of Nepal for salt and wool from Tibet...The eventual closing of the Nepal-Chinese border to trade in the 1960's brought a rapid end to their way of life... Realizing they lived in a region where sufficient food for the year could not be raised and realizing that they no longer have a sufficient source of income to import food from other areas, they decided to migrate." (1977:434)

This observation may not be completely accurate.

First, none of those who have stated that Thak Khola was/is a food-deficit area have published any data in support of this position. In Thak Khola there is a total of 1,015 ha of agricultural land.⁴⁵ The population is almost equally divided between Thaksatsai and Pacgau, i.e., 2,519 and 2,295 persons, respectively. However, 71 percent of the land (718 ha) is in Thaksatsai and only 29 percent (297 ha) in Pacgau. It is difficult to estimate the total grain production in the area because of the lack of detailed information on cropping intensity and yield. According to a conservative estimate, the cropping intensity is about 140 percent and the average grain production about 1.2 mt per ha. Consequently, the total annual grain production is an estimated 1,680 mt, or about 350 kg per capita.⁴⁶ The cropping intensity and the yield is higher in Pacgau than in Thaksatsai, and while less than 30 percent of the land is found in Pacgau, an estimated 40 percent of the total production is from that area. Consequently, the average annual grain production is an estimated 400 kg per capita in Thaksatsai and 293 kg per capita in Pacgau. This is well within the official grain requirement of 140 kg per capita for the mountain region, and also within a more generous estimate of 200 kg per capita, and I will therefore argue that Thak Khola is not a food deficit area.⁴⁷

Secondly, the main question is not whether the grain production in Thak Khola was sufficient to feed the local population, but whether those who left Thak Khola were able to make a living there. Informants mention that only few of the emmigrants were so poor that they had problems making a living in Thak Khola. The majority of the emmigrants had sufficient land, animals and capital to make a living, but following the decline in the salt trade they had difficulty maintaining their former high living standard. In addition, there were security problems in Mustang District in the early 1960's, and public services (e.g., schools, hospitals, transportation, and electricity) and business opportunities were greater in Pokhara and other urban centres in the south. For emmigrants life as a hotel/shop-keeper and businessman in the south was more attractive than life as a farmer-cum-businessman in the cold Thak Khola. Furthermore, the richest families

already had large investments in the south and were able to manage their investments more efficiently by living there permanently. In sum, the question was not so much about subsistence, as it was maintaining an already high living standard.

Thakali emigrants and their descendants range from very rich businessmen in Kathmandu to poor inn-keepers living along the highways and trails in Western Nepal. Some anthropologists have mentioned outstanding success-stories among the emigrants⁴⁸, but most are not success-stories, and some outstanding failures could be quoted. Compared to other ethnic groups Thakali emigrants and their descendants are, however, generally quite well off economically and have adopted well to their new environments. Several factors account for this, perhaps the most important is that the bulk of the emigrants had capital to invest when they established themselves in the south and, unlike many other emigrants in Nepal, were not forced to work as manual labourers to make a living.

Since the 1970's the rate of emigration has slowed down and only a few Thakalis are emigrating from Thak Khola. Some emigrants have even returned to Thak Khola. Changes which have taken place in Thak Khola during the past decade have curbed the previous flows. The possibilities for cash-crop farming (horticulture, vegetables, etc.) and business (hotel business, contracting, mule business, etc.) are very good, and educated Thakalis can get jobs locally as civil servants. Also, basic services such as hospitals, schools, water supply, transportation and electricity have greatly improved.⁴⁹ Reasons for leaving vary from case to case among the present emigrants. Some are poor and hope that life as inn-keepers in the south will be better and easier than that of a poor peasant in Thak Khola. Others face no major economic problems but find life in Thak Khola too hard and the possibilities better in the south, while some leave for health reasons.

CONCLUSIONS

Given Thak Khola's remoteness and hostile environment most first-time visitors are surprised to see how well developed the valley is. Primary and lower secondary schools are found in all major villages and there are higher secondary schools in Jomsom and Kobang (others are planned in Marpha and Lete). There is a small hospital in Jomsom and most of the village panchayats have a health post. Almost all villages have portable water supply schemes. Pacgau and the northern part of Thaksatsai have had electricity since 1983. There are no roads in the valley but a small airport is located at Jomsom and it is possible to reach Pokhara and Kathmandu in less than an hour.

Few villagers face serious problems making a living, and the majority live a secure life producing sufficient foodgrain and making enough cash to buy essential goods and services at the market. For example, when the buckwheat crop was destroyed in Syang in 1982 villagers were able to buy foodgrains at the market and did not require Government assistance.

Table 4: Landdistribution in Pacgau and Nepal

Pacgau		Nepal	
Households	Percentage of total holdings	Households	Percentage of total holdings
Poorest 50 percent	22 percent	Poorest 56 percent	12 percent
Middle 27 percent	32 percent	Middle 38 percent	44 percent
Richest 23 percent	46 percent	Richest 6 percent	44 percent

Sources: Own sample survey, 60 households (1977)
Asian Development Bank and HMG of Nepal (1982)

Factors Facilitating Development in Thak Khola

There are several factors contributing to the high living standard in Thak Khola as compared with other hill and mountain areas in Nepal.

In Thak Khola land holdings are larger and more equally distributed than in most hill and mountain areas. In Thak Khola land is owned by individuals, temples and patrilineal descent groups. In Thaksatsai the average household landholding is 1.4 ha and in Pacgau 0.5 ha (the average holding per capita is 0.29 ha and 0.13 ha, respectively), as compared with the national average of 0.4 ha for the hill and mountain region.⁵⁰ Although the average landholding in Pacgau is not much higher than the national average, most of the land is irrigated and highly productive.

Land is also more equally distributed in Thak Khola when compared with the national average. In Pacgau, the poorest 50 percent of households own 22 percent of the land, while the middle 27 percent own another 32 percent, and the richest 23 percent the remaining 46 percent of the land (Table 4). (The distribution is basically the same in Thaksatsai where the poorest 46 percent of households own 25 percent of the land, the middle 27 percent another 28 percent, and the richest 27 percent the remaining 47 percent). This distribution is less skewed than the national average where the poorest 56 percent of households own 12 percent of the land, the middle 38 percent another 44 percent, and the richest 6 percent the remaining 44 percent of the land.

In Thak Khola population growth is estimated to be lower than the national average. There is no detailed demographic data available from Thak Khola, but the population growth is estimated to be lower than the national average of 2.66 percent.⁵¹ If this assumption is correct pressure on land and other resources is less in Thak Khola than in other parts of the kingdom.

The Thakalis are, generally speaking this-world-oriented and business minded. For centuries Thakalis been living along one of the major trading routes between Nepal and Tibet, and most Thakalis are this-world-oriented and business minded. The conservatism, resistance to change, closeness, and

rigid caste rules which hinder development in some areas of rural Nepal are not prevalent among the Thakalis.

This mentality is manifested in several ways. For example, when Thakalis sponsor a religious ceremony they want results here and now, and not to be repaid sometime after death. Also, 94 percent of the informants in a sample of Thakali emigrants in Pokhara found that a person who puts himself in danger by helping others is a fool.⁵² Business-mentality is illustrated by the many ways Thakalis make an income outside the agriculture sector (see below). Furthermore, young men are willing to borrow capital at high interest rates because they are confident they will make a profit. In this connection, it is important to note that while most Thakalis are business-minded, only a few are true innovators and venture capitalists. The young men who invest in mules are in a well established and not in a venture business. Thakali venture capitalists are usually well off, have good connection with the Government bureaucracy and political leaders, and are able to obtain cheap loans for their ventures. They themselves are often political leaders. It is only after these entrepreneurs have proven that certain business is profitable that other Thakalis follow their example. The spread of apple cultivation in Thak Khola illustrates this point. A final example of the Thakali business-mentality and lack of conservatism is Thakali women who are free to operate inns on their own in the south in winter.

In Thak Khola the opportunity to obtain credit is good. As examined in detail above, there are many sources of credit in Thak Khola, such as banks, moneylenders, and traditional credit and saving associations.

In Thak Khola the opportunity for non-agricultural income is good. As detailed above, Thakalis make an income from rearing goats, sheep and yak, mule business, the cultivation of fruits and vegetables, running inns and hotels in Thak Khola and the south, salt trade, various other business (such as construction), renting out houses, and the sale of labour. For example, in Syang one third of all households have an income from mules and the net earning is about 700,000 Rs a year. The demand for skilled and non-skilled labour is great and poor have no problem getting a job, illustrated by hundreds of outsiders working in the valley.

Thakalis form close-knit societies with strong traditional political organizations. In Pacgau each of the five original villages (Thini, Syang, Cimang, Marpha and Chaira) form separate political entities, while in Thaksatsai there is a council of headmen of the thirteen original villages.⁵³ As in all societies there are differences in opinion about how to handle the public affairs, but even if there is disagreement with the village headman, his authority and orders are generally accepted. This is possible mainly because each village is dominated by a single ethnic group (the villages of Thaksatsai by Tamang Thakalis, Marpha by Mowatan Thakalis, and Thini, Syang and Cimang by Yhulkasompaimhi Thakalis) and because the traditional political system has remained in force for many centuries.

The strong local political organization has been useful in the planning

and implementation of development programmes. In Thak Khola project authorities do not have to deal with several independent formal and informal political leaders, but only need the agreement of the leaders of the traditional political organizations (as well as those of the village/district panchayat) to obtain the commitment of the local communities. The traditional political organizations have also proved useful in the mobilization of local labour and enforcement of rules relating to the use of public service systems (e.g., potable water supply and irrigation systems).

Thakalis emphasize education and the literacy rate is high. In most villages primary schooling is compulsory and children are fined if they do not attend school. Enrollment is therefore high, and in Mustang District the female enrollment in primary schools (43 percent of the total enrollment) is among the highest in the Kingdom. Although the full results of this emphasis and efforts are yet to be seen, the literacy rate is high in Thak Khola (in Syang 42 percent of the population above 14 years of age can read and write Nepali and/or Tibetan).

Thakalis have a nuclear family household system. Among the Hindus in Nepal the ideal norm is the household based on the joint family, but among the Thakalis the nuclear family household is the ideal norm as well as the most frequently encountered household type.⁵⁴ While most of the newly married couples join the household of the husband's father they stay there only for a few years. At the latest they establish their own independent household when a younger brother of the husband marries. If the husband is the youngest (or only) son he frequently stays in a joint household to look after his parents in their old age. The Thakalis mention that they prefer the nuclear family household to the joint family household since the latter leads to conflict among family members. In addition, informants explain that members of joint family households have little incentive to work hard and make a profit since they have to share their income with their brothers' families. On the other hand, the nuclear family household promotes initiative and hard work because members divide their income only with their spouse and children.

The Government has implemented many successful projects in Thak Khola and the valley has now a reasonably good infrastructure and basic services. Most projects have been undertaken with external assistance. UNDP has financed projects for sheep, goat and wool development, hill agriculture development, and fruit storage, processing and transportation, while FAO has implemented a vegetable and seed production project. UNICEF has financed water supply systems, repair of schools and temples, and distribution of free school books. USAID is currently funding a resource and conservation utilization project, and a hydropower project was undertaken with OPEC assistance.

In Nepal some development projects are not being satisfactorily implemented, but in Thak Khola most projects have been reasonably successful. This is attributable, in part, to the active participation of the local population in the identification and implementation of projects. In the case

of Marpha Agriculture Farm, Government officials are well-qualified, extremely dedicated and hard-working (and therefore highly respected by the villagers). Furthermore, the benefits of most projects have reached the majority of the villagers and not only a small elite. For example, the water supply systems and hydropower project have provided drinking water and electricity to all villagers. Similarly, the distribution of free books reach all primary school children. In the case of Marpha Agriculture Farm, the most outstanding result is that it has been instrumental in the adaptation of apple cultivation by more than half of the households in the valley.

Problems

Although the standard of living is higher and basic infrastructure better in Thak Khola than in most other parts of rural Nepal, the local villagers face some major problems which need serious consideration. The main problems are discussed below.

Some development projects have been designed with little understanding and consideration of local conditions. In Thak Khola villagers use pine, juniper and cypress for fuelwood and timber. In Thaksatsai rich forests are found close to the villages while in Pacgau forests are situated up to 1,000 m above the villages. Forest resources are being overutilized due to an increased demand for fuelwood from the local population, outside labourers, civil servants, military personnel and tourists. There is also an increased demand for timber for construction work; for example, the administrative building complex under construction in Jomsom (under RCUP) requires about 12,000 cubic feet of timber. In addition to an increased demand for forest products, the forests are being depleted due to poor management and failure to replant.

As a part of its programme the RCUP has established several small plantations (mainly with poplars) close to the villages in Pacgau. These plantations are, however, of little use to the villagers. First, poplars are not as useful as pine for timber and fuelwood. Secondly, while poplar is an important fodder tree in the middle hills, it cannot become a major source of animal fodder in Thak Khola where the ecological conditions are different from those further south. In conclusion, instead of new plantations the programme should have concentrated their efforts on improving the management and utilization of existing forests.

There are plans to build a Baglung to Mustang road both to reduce the cost of rice and other imported goods and to open up Pokhara and Kathmandu to products from Mustang District (e.g., vegetables, fruits and wool). A better alternative would be to build a ropeway. First, it would be less expensive. It would cost 66.7 million Rs (1976-prices) to build a 57 km long ropeway between Beni and Jomsom while a 179 km road between Beni and Lho Manthang would cost 852 million Rs (1978-prices).⁵⁵ Second, landslides make roads extremely expensive to maintain while ropeways are less vulnerable to this problem. Third, to run vehicles Nepal needs to import fuel, while a ropeway would run on locally produced energy. Fourth, the number of

trekkers on the Jomsom trail is likely to decrease if a road is built, causing hardship to many inn and hotel owners along the route. Finally, villagers express concern that a road would open up their valley to undesirable elements from the outside.

The self-reliance of the local communities is decreasing. In the past Thakalis have themselves financed and built several trails, bridges and schools as well as almost all the irrigation systems in the valley. Some of the construction work which has been undertaken in Thak Khola in recent years could, if the villagers had found them useful, have been undertaken with popular participation, but have been constructed at high cost using local contractors. Villagers now believe that the Government can and should provide anything they ask for. The Government has done little to change this perception.

Thakalis have become increasingly dependent on the outside market.

Thakalis are integrated in the market economy and more dependent on outside goods, capital and services than their forefathers (as are most peasants in rural Nepal). This integration is a double-edged sword. It is one of the reasons for the high living standard in Thak Khola, but on the other hand it is dangerous for Thakalis to be too dependent on an outside market over which they have no control. The decline in the salt trade around 1960 clearly illustrates this point. In the future it may become apples, mules or tourists.

The poorest quintal of the Thakalis continue to live in poverty.

In general, the Thakalis have a high standard of living. The poorest quintal of the population, however, face problems making a living. Consequently, special programmes should be planned and implemented for the benefit of this section of the population.

NOTES

1. The material for the present article was collected during fieldwork in Nepal in 1972, 1975-78 and 1980-81, and some information was updated in 1981-84 when I was working in Nepal for the United Nations Development Programme. I am grateful to the Danish Research Council for the Humanities which financed my fieldwork in Nepal and to His Majesty's Government of Nepal for permission to undertake research in Thak Khola. Thanks are due to K.L. Thakali, Phalendra Thakali and my wife Bina for their assistance in the field, and to J.L. Ross who reviewed and commented upon a draft of this article. The views expressed in this article are those of the author and do not reflect or imply those of the United Nations.
2. For an introduction to the Thakalis, see Iijima (1960), Jest (1966), Bista (1967), Fürer-Haimendorf (1975), Vinding (1981) and Messerschmidt (1982).

3. The Tangbetans found in Thak Khola all live in Jomsom and originate from Tangbe village in Baragau. See Vinding (1979).
4. For an introduction to the people of Baragau and Lo, see Führer-Haimendorf (1975,1981) and Schuler (1981).
5. For an ethnography of the Magars found south of Thak Khola, see Kawakita (1974).
6. According to local law the cultivation of garlic (and maize) is forbidden in Marpha, but the ban is no longer being observed.
7. One mana measures 0.545 litres. Eight mana equal one pathi, and 20 pathi equal one muri.
8. If not stated otherwise, all prices refer to those of 1984. The price of foodgrains varies according to season and is lowest immediately after harvest.
9. According to official sources Nepal Food Corporation supplied 349 mt of foodgrains, or about 8 pathi per capita, to Mustang District in the year 2041 B.S. (1983-84). (Rising Nepal, 27 June 1984).
10. In 1980 a white yak tail cost 100-150 Rs and a black one 20 Rs; the white tails are painted red and used as a head-dress for the mules.
11. For a description of inter-household cooperation among the Thakalis, see Vinding (1979/80b). See also Messerschmidt (1982).
12. For an analysis of caste, occupation and purity in Nepal, see Höfer (1979).
13. In 1834 one rupee bought eight pathi of rice in Jumla (Regmi 1978:54).
14. Manzardo (1976) notes that only few of the emmigrants who left Thak Khola in the early 1960's sold their land and explains that "this was partly because the land was worthless and buyers were hard to find, but the picture has changed." (p. 437). I do not agree with this explanation. First, it is unreasonable to state that land was worthless. Furthermore, according to local informants it has always been easier to sell than to buy land in Thak Khola. In the early 1960's a large number of Thakalis left Thak Khola and it became difficult to get a good price for land. Even so, informants explain that the emmigrants retained their land mainly for safety's sake in case they had problems in the south, and to keep ties to their homeland.
15. See Vinding (1982)
16. It is not easy to count to 9,000 pieces without making a mistake. The seller therefore put aside one piece for every 30 pieces he counted and

when there were 300 pieces, the seller knew that he had reached 9,000 pieces. The seller kept one piece to ensure that the spirit of prosperity (yang) did not leave the house.

17. Thakalis do not eat beef, pork and buffalo meat when in Thak Khola, but outside the valley some consume these kind of meat.
18. In 1972 herds of sheep from the south came to Pacgau and Thaksatsai to graze in summer against a fee to the village concerned. The sheep no longer come to Pacgau, but continue to come to Thaksatsai.
19. In a recent article on animal husbandry in Thak Khola (Manzardo 1984) it is mentioned that the Thakalis used to keep yak as pack animals on the northern sector of the trans-Himalayan trade (p. 22,30). According to my informants, Pacgau Thakalis used mainly jho and Tamang Thakalis mainly mules to transport barley to Lo/Tibet and salt back to Thak Khola. The yak was (and still is) kept primarily for reproductive purposes and for the sake of its milk, and it was used only occasionally as a pack animal.

Furthermore, it is noted that the yak is not kept for its meat and that the consumption of yak meat is banned among the (Tamang) Thakalis (p. 25). As mentioned in Vinding (1979/80a) many Tamang Thakalis consume yak meat. In December 1984 two yak were killed in Kobang and a local Thakali informed that only few Thakalis in that village do not eat yak meat.

Finally, it is observed that the milk production from the yak "is primarily for household consumption, although butter is sold for use in preparing the salty Tibetan-style tea favoured in the area and for use in religious rites." (p. 26). In Thak Khola the yak is primarily a 'cash-crop' animal and milk production is used almost exclusively for making butter for sale. Only a fraction of the milk product is consumed by the owner of the yak herd.

20. In Jomsom the army is rearing pigs and cultivating fish, using warm water from a nearby hot spring. Thakalis do not traditionally eat pork and pig raising has no great potential in Thak Khola, but there are several hot springs and local farmers may adopt aquaculture.
21. But according to R.P. Sherchan, President, Mustang District Panchayat, half of the 40,000 apple trees in the district were bearing fruit in 1982 (Rising Nepal, 27 October 1982).
22. For a description of this trade up to 1982, see Bista (1971), Messerschmidt and Gurung (1974), Fürer-Haimendorf (1975), Iijima (1977) and Manzardo (1978)
23. Primary schooling is compulsory in many villages and school-going

children stay in the south only from December through February when schools in Thak Khola are closed.

24. According to Valeix (1974) seventysix percent of the population in Marpha migrated south in the winter 1969-70. In December 1984 I was informed that the number of seasonal migrants in Marpha has further decreased in recent years due to better business opportunities in Thak Khola.
25. But Valeix (1974) notes that in 1969 traders from Marpha brought rice in Bhairawa and transported it to Pokhara where the price was double.
26. Thakalis are usually referred to as one of the major trading groups in Nepal, but trade (i.e., the buying and selling of goods which have not been manufactured by the trader) is only of minor importance to the Thakalis of Thak Khola.
27. For a description of the sweater-trade in India by the people of Baragau, see Schuler (1977).
28. See, for example, Caplan (1972).
29. The household is the most important socio-economic group among the Thakalis and consists of a group of relatives who place their labour and property into a common fund and satisfy their material needs from the turn-over of the fund. See Vinding (1979/80b).
30. As mentioned earlier, Thakalis take two main meals a day, namely rice and sweet buckwheat or maize porridge. In Syang, sweet buckwheat is the main summer crop and almost all households produce enough of this crop to meet their requirements. The main winter crop is naked barley which is used for making beer, alcohol and flour. Most households have a surplus of this crop, but only some sell a substantial amount, which here is defined as one muri per household member.
31. See Agriculture Development Bank (1981:98).
32. Messerschmidt mentions that the Thakali word shiku also means "a round wooden vessel (for holding curds, oil, or ghee)" (p. 151). I have not come across this meaning of the word shiku.
33. The word dikur derives from du khor meaning "circle/rotation of grain". Among Yhulkasompaimhi Thakalis dikur is known as bhreko. The etymological meaning of the word bhreko is unknown, but it may be derived from preh, "eight", and khor, "circle/rotation", that is a circle or rotation (dikur) with eight parts/participants.
34. Based on material collected in 1962, Bista notes that "there are hundreds of dhigurs functioning at the present time." (1967:89). If so, the number of dikur has decreased sharply in recent years.

35. Messerschmidt (1978:144) mentions an example where five persons have one common share.
36. The payment in the most expensive dikur in Thak Khola is 2,000 Rs (plus increment) twice a year.
37. Manzardo (1978) notes that "In addition to its role in maintaining cohesion within Thakali society, however, dhikur gives the Thakalis a means of redistributing income, so that capital for investment reach the places where it is most needed to establish or expand new business." (p. 99). And Messerschmidt (1978) observes that dikur "are formed in spite of cooperation among friends" (p. 156), and that they "foster economic cooperation in the community" (p. 157).
38. See Messerschmidt (1978:150)
39. See Füller-Haimendorf (1975:198).
40. See note 37.
41. See Füller-Haimendorf (1975:199)
42. See Gauchan (2038:27)
43. For studies on emigrant Thakalis, see Manzardo (1978), K.C. (1980), Bhattachan (1980) and Iijima (1977). In addition, B. Fisher undertook fieldwork among the Thakalis of Myagdi District in 1982-84.
44. See Füller-Haimendorf (1975:142).
45. The figures on landholdings in Thak Khola were obtained from the Land Survey Office, Jomsom.
46. These figures are conservative estimates. In Pacgau the cropping intensity may be as high as 170 percent, and according to well-informed HMG officials who have been living in Thak Khola for many years the yield of barley is 3.5 mt per ha in the best fields.
47. According to Agricultural Statistics of Nepal published by the Food and Agriculture Ministry (1972), the amount of edible foodgrains required per head per annum is 140 kg in the mountain region (quoted in Gurung 1981:33). Asian Development Bank/HMG of Nepal (1982:41) assumes, however, the minimum level of grain consumption to be 190 kg per capita per year.
48. Manzardo (1977:437)
49. Due to the possibilities for cash-crop farming and business some Thakali emigrants have returned to Thak Khola. In December 1982 Marpha village sold some barren plots of land south of the village and through

the Mārphālī Sewā Samiti in Pokhara emigrants were informed about the sale. Twentytwo emigrants responded and bought a plot of land.

50. See World Bank (1979:12)
51. This assumption is based on, inter alia, that the population in Mustang District is reported to have decreased from 13,571 persons in 1971 to 12,399 persons in 1981 (Gurung 1982:19).
52. See Bhattachan (1980:60).
53. See Vinding (1981).
54. See Vinding (1979/80b) for details on the Thakali household system.
55. See Societe Generale pour l'Industrie (1976), and CEMAT (1978).

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Sex Differentials in Infant and Child Mortality in Rural Nepal

Bhakta B. Gubhaju

Introduction¹

Contrasting differences are exhibited in the mortality of male and female children. Dyson (1977) noted that child death rates (1-4 years of age) of males are almost invariably higher than those of females in low mortality countries. However, in many other developing countries this pattern does not prevail. Probably the biological disadvantage which male children have is nullified by other factors. Higher child mortality for females than males has been found in the Indian subcontinent, parts of western south Asia and in some populations in northern Africa (Dyson, 1977). Hansluwka and Ruzicka (1982) observed that in high mortality countries, infectious diseases coupled with undernutrition constitute the major causes of child mortality. In such situations, female children are in many instances at a greater disadvantage than male children.

Several studies in India have shown that except for the early period of infancy, female mortality in childhood exceeds male mortality (Arora, 1980; Khosla, 1980; Isely, 1981). The authors relate this abnormality to the social, religious and economic factors that operate against the female offspring.

Studies in Bangladesh provide conclusive documentation of higher female than male mortality shortly after birth and throughout childhood (Mitra, 1979; D'Souza and Chen, 1980; Chen *et al.*, 1981). The higher level of malnutrition among girls than boys was attributed to intra-family allocation of food between children of differing sexes. In Sri Lanka also mortality rates above age one of female offspring of Tamil mothers exceeded those of male offspring (Boulier and Paqueo, 1981). Another study in Sri Lanka has revealed that during the neonatal period, where biological factors favouring females predominate, males have 29 per cent higher mortality than females predominate, males have 29 per cent higher mortality than females, while during the postneonatal period the male mortality rate was only about five per cent higher than that of females. The smaller gap in the postneonatal mortality rate between the two sexes and the persistence of higher female mortality at ages 1-4 and 5-9 have been attributed, at least in part, to the influence of son preference (Nadarajah, 1983).

Sex Preferences in Nepal

In an agricultural country like Nepal, children are highly valued. Their usefulness as a source of labour contributing to the household economy and later in life, as a source of economic support for their

elderly parents is more important than their cost as additional mouths to feed and bodies to clothe (Hitchcock, 1966; Nag *et al.*, 1978). However, there is a tendency in the Nepalese villages for elderly parents to live with sons more often than with daughters (Nag *et al.*, 1978); for this reason, there is, in general, a preference for sons. An overwhelming preference for sons by Nepalese women was revealed in the Nepal Fertility Survey: 97 per cent of women with one son and one daughter indicated a preference for the next child to be a son, and almost three-quarters of women with three living children, two of whom were sons, indicated a preference for another son (Nepal Family Planning and Maternal Child Health Project, 1977). Regarding son preference Hitchcock notes in a hill area of Nepal: 'Pregnant mothers and mothers hoping to conceive visit the Shaman for spells or go to local shrines to pray that they bear a son' (Hitchcock, 1966:48). Despite the strong preference for sons, daughters are also highly regarded and treated with much affection. Unmarried girls of the family and lineage have a high ritual value. Gifts given to them are regarded as gifts given to Goddesses and this is also a way of obtaining religious merit (Hitchcock, 1966).

The value of daughters among the Newars was noted in another study (Nepali, 1965); even after a daughter is married, the emotional attachment to her parents is very strong. The close relationship with her parents' home is expressed in terms of tender feelings as well as in terms of innumerable contacts; it is also widely practised that a married daughter lives with her parents for a few days a week until she gives birth to her first child (Nepali, 1965). Along with the social values attached to the daughters, they are also an important source of labour while still in the parental household. Hitchcock (1966) observed in the hill areas of Nepal that females actively participated in the farm work.

Another study in the hill area of Nepal has revealed that parents wish to have a girl child before a boy child as the girl assumes responsibility at a younger age and is able to ease the family workload (Molnar, 1980). The author goes on to say that although sons provide support for the couple in their old age, if there are no sons, daughters may also provide such support (Molnar, 1980:128).

The children of both sexes in the hills were found to have been treated more or less in the same way by the rest of the family, in particular, the parents and grandparents (Peet, 1978). Anthony (1979) also did not find any systematic variation in child mortality between sexes, implying that parents did not discriminate against female children. However, in the Terai area, sex of the child was shown to be important, female children having higher mortality, but was not consistently significant in determining the survival of the last child (Cochrane, 1981). Another study in the Terai also demonstrated that although more boys than girls were diagnosed as sick, no significant difference was found in treatment (Nepal Family Planning and Maternal Child Health Project, n.d.).

Data and Methodology

The present study examines the sex differentials in infant and child mortality in rural Nepal by birth order of the index child, and the survival status of the preceding sibling. The survival status of the preceding sibling is defined as alive or dead at the time the index child was born. The study is based on the data from the Nepal Fertility Survey 1976 carried out by the Nepal Family Planning and Maternal Child Health Project in collaboration with the World Fertility Survey. The details of the survey methodology and sample design can be found in the Nepal Fertility Survey, First Report (Nepal Family Planning and Maternal and Child Health Project, 1977). Although the major objective of the survey was to identify differentials in patterns of fertility and fertility regulation and to clarify factors affecting fertility, the information gathered from the pregnancy histories of ever-married women aged 15-49 years of age also provides the most comprehensive and detailed set of data suitable for the study of sex differentials in infant and child mortality. The present study is mainly confined to the rural areas of Nepal: of the 5940 women there are 5802 women interviewed in the rural sample.

Infant mortality is measured as the probability of dying of a cohort of live births before reaching age one, and child mortality (1-4 years of age), in turn, is measured as the probability of dying before age five for those of the cohort of births that survived to age one.

In order to calculate the probabilities of dying between birth and age one, and between ages one and five, we excluded from the analysis all children who were born less than five years before the survey to eliminate the effect of truncation. Because of the uncertainty about completeness of reports on births and deaths that occurred in the remote past we excluded from the analysis births that occurred 15 or more years before the survey. In addition, children born more than 15 years before the survey would have a high proportion of those born to younger women; such births are known to be associated with high risk of infant and child death and their inclusion would overestimate the past mortality levels. Thus the present analysis includes only children born between 5 and 15 years before the survey.

Results

Studies carried out so far in Nepal do not provide any conclusive evidence to show higher female than male mortality during childhood. The present study, as shown in Table 1, confirms the findings of others. The probability of dying before age one is higher for males than for females. This trend persists for all birth orders except for the sixths and higher order birth, which have slightly higher female than male mortality. However, the probability of dying between ages one and five for fourth and higher order births is higher for female than male children. The mechanism of how the sex differential in child mortality (higher female than male) appears to operate among higher order births needs further analysis and is elaborated next.

Table - 1

Infant and Child Mortality by Birth Order and Sex of the Child,
Rural Nepal

Birth Order	Infant Mortality*			Child Mortality**		
	Sex of the Child			Sex of the Child		
	Male	Female	Ratio	Male	Female	Ratio
	(1)	(2)	(3)= (2)/(1)	(4)	(5)	(6)= (5)/(4)
1	187 (947)	182 (966)	0.97	95 (770)	104 (790)	1.09
2	164 (854)	156 (802)	0.95	112 (714)	102 (677)	0.91
3	165 (728)	147 (682)	0.89	125 (608)	110 (582)	0.88
4	172 (576)	128 (578)	0.74	119 (477)	125 (504)	1.05
5	165 (425)	147 (423)	0.89	102 (354)	127 (361)	1.25
6+	175 (738)	185 (763)	1.06	97 (609)	121 (622)	1.25
All	175 (4267)	161 (4214)	0.92	108 (3532)	113 (3536)	1.05

Notes: Figures in parentheses are number of live births for infant mortality and number of children that survived to age one year for child mortality.

* Per 1000 live births.

** Per 1000 children that survived to age one year.

Source: Nepal Fertility Survey 1976.

Table - 2

Child Mortality* by Birth Order, Sex of the Child and Survival of Previous Child, Rural Nepal

Birth Order	Dead			Alive		
	Sex of the Child			Sex of the Child		
	Male	Female	Ratio	Male	Female	Ratio
	(1)	(2)	(3)= (2)/(1)	(4)	(5)	(6)= (5)/(4)
2	120 (166)	154 (156)	0.28	110 (546)	87 (520)	0.79
3	168 (125)	153 (124)	0.91	114 (483)	98 (458)	0.86
4	168 (101)	133 (128)	0.79	106 (376)	123 (374)	1.16
5	151 (73)	219 (73)	1.45	89 (281)	104 (288)	1.17
6+	97 (124)	108 (166)	1.11	97 (484)	125 (456)	1.29
All	138 (589)	145 (647)	1.05	105 (2170)	106 (2096)	1.01

Notes: Figures in parentheses are number of children that survived to age one year.

* Per 1000 children that survived to age one year.

Source: Nepal Fertility Survey 1976.

In general, Table 2 suggests that there is no indication of discrimination by sex which might have resulted in higher risk of dying of one sex at the cost of the other. Had there been any sex discrimination, it should be at least apparent in the survival of the higher order births. Two hypotheses may be put forward on this matter. In the case of strong preference for sons, if the previous child has died, the risk of dying of the next child will be lower if it is a male child, as the parents may try harder to protect him by providing the maximum care they can afford. Second, among higher order births, if the previous child is alive, the risk of dying of the next child will be higher if it is a girl, because in a situation where the previous child is alive the girl of the higher birth order may not be very much wanted. She may, for instance, not get adequate attention from her parents. Looking at the ratios in column 3 in Table 2 one can observe that for fifth and higher order births boys have lower probability of dying between ages one and five than girls. This lends some support for the first hypothesis. Also observed in this column is that, in the case where the first child did not survive, the second child being a boy has a relatively lower risk of dying during childhood than if it is a girl. This reaffirms the fact that if the previous child has died the next child being a boy receives much attention from the parents for its survival. The ratios in column 6 of this table also provide support for the second hypothesis: among the fourth and higher order births the probability of dying between ages one and five is higher for girls than boys, among the children of mothers whose previous child is alive. It can also be conjectured here that if the previous child that is alive is a son then the chances of dying of the index child being a girl might further increase, because of the possibility that the existence of the older male competitor decreases the survival chances of the female child. It has quite clearly been observed in Uttar Pradesh, India that there is some possibility that families may give preference to the existing male children rather than to the newborn females (Simmons *et al.*, 1982). This may also be the case in the Nepalese context, but in the absence of the relevant data we are not in a position to confirm it.

Summary

This study has revealed that, in general, there is no indication of higher female than male mortality in infancy and early childhood in rural Nepal. However, when the data are analysed separately for children of mothers whose preceding child is alive and those of mothers whose preceding child is dead, some evidence of higher female than male mortality in early childhood appears to operate. Female children of higher order births, particularly those whose preceding sibling is alive, have higher risk of dying than male children. This may be due to the competition of the children for maternal attention and household resources. In such a situation, female children of higher order births may be in a disadvantageous position.

NOTE

1. This paper was prepared while the author was a research scholar at the Department of Demography, the Australian National University, Canberra. The author wishes to thank Dr. Lado Ruzicka and Dr. Terence Hull for their valuable suggestions in the preparation of this paper.

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Review Article: Cities and Mandalas

Panauti, une Ville au Népal by V. Barré, P. Berger, L. Feveile, G. Toffin, with the collaboration of R. Fouque. Preface by C. Jest. Bibliothèque Berger-Levrault, Paris 1981.

Introduction¹

David N. Gellner

This book is a landmark in the study of the ancient culture of the Kathmandu Valley. The project which produced it brought together an anthropologist already well-versed in the local language and culture, and three architects, and the result is a compelling picture of small multi-caste city, from the point of view of 'the anthropology of space' or what might be called architecture with a human face. The book's intrinsic merits, as well as the fact that it is published in French, a language not normally read by Nepali scholars, make a detailed review well worthwhile.

The cities of the Kathmandu Valley have attracted an enormous amount of scholarly attention from architects in recent years, because they represent one of the last functioning examples in the world of a pre-modern city. For the western architect of today, seeking in his work to combat the cold and inhuman nature of the industrial city, it must be fascinating to observe a city in which architecture and social structure fit each other like a glove, in which the most ordinary everyday activities are set in a sacred frame, in which religious values are expressed spatially and spatial concepts religiously, in which, in short, the whole process Max Weber called disenchantment, the de-magicking of the world, has not yet taken place.

The pioneering work which first addressed these themes was Ordered Space - Concepts and Functions in a Town of Nepal by Gutschow and Kölver. It pretended to be no more than a manifesto, but it paved the way for much future research by drawing attention to the way in which the city as a whole must be seen as a religious unit, how conceptually if not actually the royal palace lies at the centre of the city, how distance from that centre marks both social and religious status, and how the religious geography of the town integrates it into a single mandala, while at the same time sub-dividing it into sections (tol) whose boundaries are marked by the 'ways of the dead'. As Gutschow and Kölver succinctly put it, "the city mirrors the universe" (Ordered Space: 21). Macdonald and Stahl's book, Newar Art, broke new ground by putting Nepalese art back into its socio-religious context, a context which includes of course the spatial themes alluded to; but in the nature of their work, they could only give the briefest of descriptions. Gutschow himself has subsequently produced a book, Stadtraum und Ritual der newarischen Städte in Kathmandu-Tal, Eine architekturanthropologische Untersuchung, which carries the case further by providing a wealth of new material on the spatial structure of the Kathmandu Valley towns.

In trying to cover them all, though, as well as dealing with Indian parallels, he once again points the way for further research, rather than providing the definitive picture of the religio-architectural structure of one city.

Anthropologists have not been so eager to study in the Kathmandu Valley, put off no doubt by the forbidding complexity of the social structure, and a Great Tradition based on Sanskrit. Where they have studies Newars, it has usually been in villages. Most of the data for the only general ethnography, G.S. Nepali's The Newars, was gathered in the village of Panga. The first work of Toffin himself was in the small and picturesque, but otherwise rather atypical, village of Pyangaon. Since then Toffin has produced a string of meticulous ethnographic articles and his high standards of accuracy are everywhere evident in Panauti. Thanks to his presence on the team, architecture and ethnography have come together to produce a work of major importance, unmarred by the a priori speculations on the social realm which are so often used as a substitute for real knowledge.

Social Structure

Toffin's experience shows, to start with in the team's choice of Panauti as a fieldsite. As the authors themselves say (p.12), its size (only 3,000 inhabitants) meant that it was possible to work in depth, and cover the whole town, in a way which would have required inordinate time and resources in Bhaktapur, Patan or Kathmandu. At the same time, Panauti is a complex, multi-caste settlement which was a royal centre in the 14th century; thus it possesses, though on a smaller scale, the spatial, architectural and religious traditions which this entails and which Gutschow and Kölver pointed out in Bhaktapur. Experience is further evident in the author's account of caste. Tables 1, 2, and 3 provide a model of this kind of work, superior on two counts to previous attempts to provide a summary of the Newar caste system. Firstly, table 3 shows the average amount of land owned per person of each caste, and secondly, table 2 shows how three principles help to structure the hierarchy: (1) whether or not the sacred thread is worn, (2) who cuts hair and nails, and (3) who cuts the umbilical cord.

Two facts emerging from the discussion of caste do however lead me to feel some slight caution about taking over the conclusions of this study wholesale in order to understand the larger cities of the Kathmandu Valley. Firstly, in Panauti only 4.27% of the population, 17 households out of 475, is of the farmer (Jyāpu) caste. Anyone who has studied in Kathmandu, Patan or Bhaktapur knows the important, not to say pivotal, role of the Jyapu caste in religion and society there. In its large number of Shresthas and few Jyapus, Panauti is perhaps similar to ² Dhulikhel, an old-established but somewhat unusual Newar settlement.

Secondly, there is the relative unimportance of Buddhism in Panauti. The authors explain that Hindus and Buddhists call different sets of priests to carry out their household rituals and continue (p.28):

However, the distinction between Hindus and Buddhists is only one of degree; it is merely a question of the type of priest and not a religious one. Followers of the two religions can be seen worshipping the same gods, taking part in the same festivals, and they have the same moral and religious values.

I have no doubt that this is true of Panauti, where the number of Buddhists is very small. For the cities of the Kathmandu Valley, even for Bhaktapur, it is, I would estimate, at best a simplification.

Urban Space

The book is divided into 3 sections dealing with "urban space", the house and with the way that both develop. The first section, after a general discussion of the history, caste, and administration of Panauti, describes the spatial organisation of the town. With an attractive series of maps it is shown how the town is surrounded by eight mother goddess shrines, possesses nine squares (nani), twenty quaysides (ghāt), twenty-eight shelters (pāṭi), and nine dancing platforms (dabu). A useful table covering two pages shows how these different places are used by different categories of people. The authors also show how the town can be divided into sections in several different ways: according to six old administrative division (tol), according to which of the ten Ganesh shrines is visited in the course of daily rituals, or according to which of the three most important mother goddess temples is visited on the occasion of rites of passage (map on p. 56). Interestingly, none of these sub-divisions bears any relation to any other, or so it seems. The only religio-spatial elements the authors have not provided us with are, I believe, the 'ways of the dead' and the distribution of the deities pīṭha, Nāsadya and chwāsā.³

Two elements of spatial organisation to be found in Panauti had already been shown to be important for Bhaktapur in Ordered Space: a binary division into the upper and lower towns (thane and kwane) and the route taken by chariot festivals around the town (the pradakṣiṇā patha), which is also binary in nature because it divides the town into that which lies inside it and that lying outside. The former distinction is, perhaps not surprisingly one of the most basic:

This is something found in all Newar settlements, whether urban or rural. The orientation of the two parts is determined by the slope of the nearest river (p.46).

A further important binary opposition, which is, I believe, proposed in this context for the first time here, is that which obtains between

the city and the holy area of temples just outside it at the confluence of the two rivers which flow on either side of the city (mythically a third - underground - river also contributes to the confluence making it especially holy):

The gods of the confluence are male and do not accept blood sacrifice. In the palace zone, by contrast, honour is given to goddesses who 'drink blood' and who are, therefore, less pure according to Hindu rules. The gods of the confluence have Brahman or Renouncer priests, whereas the goddesses' priests are primarily the tantric Karmachariyas, who are lower in caste. It is also fair to say that the confluence is associated with the values of renunciation, whereas the 'palace' is rather connected to life in the world. Here we find the opposition which is fundamental to Hinduism between the Brahman who represents sacred knowledge and the Ksatriya who represents political and military power (p. 51-3).

The authors themselves note that the contrast is less sharp, though it still exists, in Kathmandu and Bhaktapur. In the cities of the Kathmandu Valley, the same contrast is also evident within the city, between the deities inside the palace and those immediately in front of it.

Does the pradaksina patha divide pure from impure?

The authors summarise their view of the role of the pradaksina patha, the circumnabulatory route taken by deities in their chariots or palanquins, thus:

This processional route is socio-religiously extremely important because it divides the population of the town into two groups: the pure, who live inside the route, and the impure, who live - with the exception of the tailor-musician caste - outside it. This disposition is connected to the opposition of left and right, pure and impure: when the procession goes around the city, the impure castes are passed on the left, the pure on the right. Thus the meaning of these symbolic encirclements can easily be seen: they define an internal space which is sacred, civilised and pure, in opposition to the neighbouring countryside outside which is wild and impure (p. 41).

In Panauti the pradaksina patha does indeed seem to divide the town neatly into pure and impure parts, with the royal palace inside it. But in Patan, Bhaktapur and Kathmandu, the royal palace is always left outside the processional route. How are we to account for this? One might try to save the thesis by qualifying it thus: perhaps all those areas which open onto the processional route are to be considered as symbolically lying inside the pradaksina patha - that is, those areas whose main doorway (mū lūkhā) through which all important exits (e.g. at death) or welcomings (e.g. at marriage) must pass, opens onto the route. However even this does not save the thesis, because there are old-established areas in both Kathmandu and Patan (I am less well

acquainted with Bhaktapur) where the inhabitants are unequivocally of clean, even high, caste status, whose main doorway opens onto an alley or street which is well outside the pradaksina patha. The inhabitants themselves, it must be said, are not unduly worried about being on the gods' left hand when they circumnabulate the town. They would certainly never infer from this that they are ritually inferior to those who happen to live on the other side of the route, and would be horrified to learn that they must be impure because of this.

It seems to me that the authors have made a slight mistake here. It is not the pradaksina patha which "defines" pure and impure, but the city walls (see the maps on pp. 48, 119, and 162 of Gutschow's *Stadtraum und Ritual*).⁵ Untouchable castes (principally the Pode/Po) must live outside them, whereas those who are not untouchable, but from whom water may not be accepted, i.e. the butchers (Nāy; Nepali, Kasāī), may live just inside the walls. (This is the distinction between thiye ma jyū pīm - not ti ma ju pi as the authors have it on p.27 - and those who are merely la: cale ma ju pīm)⁶.

The case of the Jogi (Nepali, Kusle), tailors and musicians who, like the butchers are not untouchable but are water-non-acceptable, and live scattered throughout the city in public shelters, does not contradict this rule, precisely because they live in public shelters, not in houses (though of course nowadays many have indeed been converted into houses). They live in shelters because of their socio-religious identity as Saivite ascetics, and they are scattered about the city because they are in fact a caste of householders providing necessary services at death to the rest of the population and must be on hand to perform them.⁷

Whereas Newars seem to be indifferent to the question of whether they live inside or outside the pradaksina patha, they are not at all indifferent, or were not until recent times, to whether they lived inside or outside the walls. Stories are often told of people presumed dead and carried out of the city; once beyond the walls, even if they revived, they could never be accepted back by their families, and had to spend the rest of their lives as mendicants. In the old days, I have been told in Kathmandu, death associations (guthis) would not come to cremate anyone who set up house outside the city walls, an extremely powerful deterrent to so doing. Nowadays of course the rules have been relaxed. Thus the pradaksina patha neither defines with logical exactitude the limit of the pure and the impure, nor, as a boundary, does it exercise the imagination of the people themselves.

There is a pseudo-anthropological way of speaking which assumes that rituals 'do' things, particularly strengthening social structure, affirming ties and other praiseworthy activities. The most promiscuous use of such phrases which I know of in the literature on Nepal is to be found in Mary Anderson's The Festivals of Nepal. To their credit, the authors of Panauti only really talk like this once, when discussing one of the main festivals of the town in which the chariots of Indresvar Mahadev and Ummatta Bhairav are rushed against that of Bhadrakali in imitation

sexual intercourse:

The point of these mock sexual unions is to revive the life of the city, to reconstitute urban space. The community regains its energy and cohesion by means of this coupling of the gods (p. 46).

As my friend Rajendra Pradhan once remarked to me, far from festivals bringing about greater cohesion, it is precisely then that fights break out setting one area (tol) against another, one family against another, or one caste against another. In general, large urban festivals do not create cohesion, but merely express it; when cohesion is on the decline, the festivals suffer, and individual castes who see their role as demeaning refuse to participate, as is already happening in Kathmandu.

Thus I think we should not say that the annual chariot festival of Panauti "reconstitutes urban space" or "revivifies the community" but merely, and more prosaically, that it expresses the fact that the city is richer, more powerful, more interesting, and above all more holy than the surrounding countryside. It is indeed the most vivid and public expression, though by no means the only one, of the city's holiness. Another point in favour of this formulation is that most of the peasants from Panauti's hinterland whom I saw watching the festival in 1982 would, I think, understand and assent to its elements. And the pradaksina patha which the chariots follow, is then merely one element expressing, or helping to constitute if you like, the purity of the city relative to the countryside, rather than directly determining or even reflecting the distribution of purity and impurity within the city.

The historical development of Panauti

At the end of the first section of the book the authors offer their hypothesis as to how the town of Panauti developed historically. They show that the layout of the town, with its gates, shelters and quaysides, approximates quite closely, allowing for a little adaptation to local topography, to the dandaka model, one of eight town plans described and prescribed in classical Hindu architecture texts. They speculate that the original nucleus of the town was at the point where three roads come together by the monastery Dharma Datta Mahavihara:

One day a 'king' decides to transform a village or small settlement into a royal town. He structures this space by putting forward a model suitable for the existing settlement, so as not to disrupt it. The centre of the existing village which was at the square of the Dharma Datta Vihara, he moves a short distance to the spot where the royal palace now is... He also lays down the number of pati, dabu, nani and ghat to be built in the future so that, added to those already in existence, their number will be correct and the city in conformity with the architectural model (p. 88).

Gutschow has presented a very similar hypothesis about the development of Patan, that at the foundation of the present palace the city centre might have been moved one block to the south-east from the hillock that is known in local folklore as the site of the Kiratas' palace. If this is correct, it would show that in Patan too a Buddhist vihara (here Manimandapa Mahavihara, one of the bahi class of monasteries which are supposed to be older than baha) was at the nucleus of the town. These hypotheses, suggestive of the role of Buddhism in the early settlement of the Kathmandu Valley and its surroundings, urgently need to be tested by archaeological investigations.

It is perhaps unfair to criticise the Panauti team for not adding an archaeologist or an epigrapher to their project. But a collection of all available inscriptional and documentary evidence, in the way that has been done by Dhanavajra Vajracharya and T.B. Shrestha for Nuwakot and Dholakha would have provided a whole new dimension to the book; or rather, it would have given us a second book to go with the first, which would perhaps have answered many of the questions the authors have raised. For instance, might we actually be able to prove that the classical texts of Hindu architecture were known and used? Does the historical evidence allow us to say when the mother goddess shrines started to be conceived of as a set? When did the cult of Ganesh become ubiquitous? What political functions did the tols, or the other subdivisions of the city, perform before 1769? These and other historical questions need to be tackled using the social scientific framework of the French team.

Domestic Architecture

The second section of Panauti deals with the types of Newar house, their construction, and the way that they are used. One could hardly hope for a better discussion of the various styles in use, the relations between them, the way that they are developed and the new elements - first Rana style, then the 'modern' style - which have appeared. Particularly welcome is the way in which the authors have included the low castes in their typology, which leads to an interesting, and perhaps unexpected, result. The untouchable, sweeper caste and poor members of other castes have at first glance the same kind of two-storey thatched huts. But the sweepers, traditionally, make a quite different use of the space: their houses are not aligned side by side, they do not use the top of the house for cooking, and in general they ignore the spatial organisation common to all other Newars. Poor Newars of other castes, with houses externally no different from those of the sweepers, divide them up in the same way as owners of the 3- and 4- storey houses. This

implies not only the need to establish the traditional division between the front and the back, the top and the bottom of the house, but also the desire to isolate family life, to protect it from intrusions from outside (p. 113).

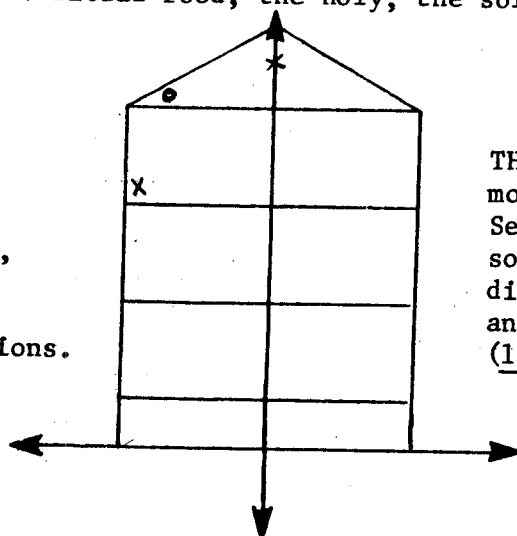
As the authors remark, the traditional sweeper house is therefore more similar, in construction and conception, to the house of the Nepalese hills than to those in their immediate vicinity. Over the last 30 years however, as their material position has improved slowly, they have built houses which have grown much closer to the Newar model.

Other subjects discussed include: methods of construction; reasons for the short life of the Newar house; and (in the first part of section 3) the ways in which houses are subdivided and extended over time, so that lineages cluster together and the characteristic small courtyards (cok) are formed. As elsewhere in the book, all these topics are illustrated with attractive diagrams, drawings and photographs.

As to the authors' findings on the use of domestic space, one can do no better than to quote their own summary by reproducing the table on page 163, combining it with the indications (given on p. 114) of deities, and the preferred cooking place (at the back of the topmost floor):

UP: ritual food, the holy, the solar.

THE REAR:
more private.
Unexpected
(l'occasionnel),
secretive,
valuable and
religious functions.



THE FRONT:
more public.
Self-presentation,
social,
display (l'apparent)
and everyday secular
(l'usuel) functions.

DOWN: the animal, excremental, outcastes, death.

X=gods O-cooking stove.

Table 140: polarities and hierarchies of the house.

The authors' comments on this diagram make it clear that the mandala model applies as much to the house as it does to the city:¹¹

Everything in the organisation of family life tends to enforce the separation of people and things according to their state of purity, and in virtue of these rules right is superior to left, high to low, symmetry to disorder, man to woman, and senior to junior.

The sacred realm composed in this way puts a crude, unorganised, chaotic and impure external sphere in opposition to a 'created' ordered, pure and internal sphere, needing protection as explained, but which, above all, constitutes a veritable 'labyrinthine staircase' in three dimensions, with taboos, physical and symbolic barriers, at every stage. Only those who can be admitted without the house being harmed in any way thereby will be able to approach the 'centre' which lies at the end of this path. Thus, in a metaphorical sense, going up to a higher storey means that one is approaching purity (p. 162).

The evidence for these oppositions comes from the authors' detailed descriptions of everyday life and religious practices. Among other topics they discuss the important lineage deity (digudyo) worship, the orientation of the cooking stove, and the stairs leading to it, the rules for sleeping arrangements, the rituals performed once a house is built and so on.

Here again, a case might be made for adding a historian or textual scholar to the team. In the ghar śānti pūjā described by the authors the central pillar of the house is identified with the lineage deity. However in the short text called Sthirobhavavākya, verses to be recited at the completion of a house, published by Slusser as appendix V to Nepal Mandala, the central pillar seems to be identified as Śiva. Perhaps this is due, paradoxical as it may seem, to the text's Buddhist provenance. However it may be, there is undoubtedly much textual material on architectural themes which the authors of Panauti have not been able to make use of. This is no reproach to them - by keeping the text to around 200 pages they have produced an attractive, yet scholarly, book, which deserves a wide audience - but it is an appeal for greater interdisciplinary cooperation, of a sort which the authors have shown to be possible. Only if architects and anthropologists, historians and Sanskritists, archaeologists and religious studies specialists put their skills together with the traditional knowledge of the priests, carpenters, artists, farmers and others of Nepal - only then can a proper holistic historical view be taken of a living tradition.

The Future of Tradition

Before turning to the authors' historical conclusions, it is worth considering their attitude to change and their recommendations for any planning that might be undertaken in Panauti in the future. In the final part of section three they discuss how a new suburb has developed outside the walls, particularly since the establishment of a 'buspark' from which buses depart regularly for Banepa and Kathmandu. In spite of the fact that many of the new houses continue old architectural practices and many old values survive, something altogether new has appeared:

The 'status of the 'outside' has changed... It seems quite likely that the centre of Panauti in the future will be there... Already people prefer to build there in complete freedom and disorder... Thus on one side there is the historical town, still very much alive with its traditional meanings and way of life, which is not very built-up, and hence is amenable to possible planning; on the other side, the new suburb spreads out, uncontrolled, chaotic, bringing in new economic values, and the nexus of communications which are becoming ever more important: the brutal opposition of these two realities calls for planned development (p. 195).

It has not been the authors' task to provide such a plan. As they point out, anyone trying to do so would have avoid old cliches or the trap of trying to turn the town into a museum: the inhabitants want development and their traditional values. But armed with the knowledge which the book so lucidly provides, and the timely warnings of its authors, planners might hope to have some success here, where in Kathmandu and Patan "uncontrolled, chaotic" development outside the old town has already gone too far for planning to have any chance of integrating the two.

Conclusion

The authors sum up the historical lesson of their book thus:

The royal city of the Newars, in its ideal model, defined, limited and organised itself according to religious and philosophical practices. In short the royal city (just as the kingdom itself) was a cosmic diagram... As for the political units of the Newars, these were very closely connected to Indian philosophical systems. They are real mandala, diagrams used by holy men for meditation, which represent the cosmos geometrically, with a centre surrounded by enclosures and fierce deities. In the centre stands the One, primordial consciousness: the palace and the gods associated with it are therefore luminous sources from which everything emanates. The enclosures mark out a sacred space: exactly the same applies to the city and its boundaries, real and symbolic... (E) very space, every architectural form, all behaviour...takes up this idea and these practices...(pp. 191-2).

But, the authors continue, it would be quite wrong to think that a philosophical model was forced onto the city; rather it was adapted to the triangular shape of the site, between two rivers, and to the settlement which already existed. This flexibility is perhaps reason to believe that some of the old architectural and spatial conceptions may survive Nepal's march to development.

NOTES

1. I would like to express my gratitude to the Leverhulme Fund which supported generously two years of fieldwork in Nepal, 1982-4, and to CNAS for the use of its facilities. The translations from the French are mine. I have included the French phrases in three cases in the diagram of the house reproduced above, where I have favoured one possible translation over others in order to render the ethnographic sense and bring out the oppositions.
2. On Dhulikhel see "The Social Structure of a Newar Trading Community East - Central Nepal" by Declan Quigley, Ph.D. thesis, LSE, 1984. Quigley points out that although it is an ancient settlement, the large number of Shresthas and their equivocal position vis-a-vis other Newars, make Dhulikhel in some ways more similar to hill settlements such as Bandipur or Gorkha.
3. Pīṭha (Newari, pīgamyā) may or may not be systematically distributed about the town. Shrines to Nāsadya (as noted in Ordered Space, p. 26) and chwāsā, the site where ritual leftovers are placed during most important life-crisis rites and on other occasions, are certainly so distributed, though whether anything follows from this, other than that every area must have them, is difficult to say at the present stage of research.
4. Slusser is puzzled by the same problem (Nepal Mandala: 102-3) but offers no solution. She seems to equate the upakhu wanegu route of Kathmandu, which follows the city walls, with the pradaksina patha, which runs well inside them. The palace at Bhaktapur, one should note, is remarkably off-centre compared to those of Patan or Kathmandu. Presumably Bhupatindra Malla put his tutelary deity in the famous Nyatapola temple at the central Taumadhi square for this reason (cf. Ordered Space: 18).
5. The French team's view is evidently derived from Ordered Space. Gutschow and Kölver must have noticed however that the pradaksina patha does not in fact separate pure from impure, because they suggest that the city walls must have been where the present pradaksina patha is at some time in the past (Ordered Space: 21)! Unless hard historical evidence for this is forthcoming, it must surely be regarded as a fairly desperate attempt to save the hypothesis.
6. See Quigley, op.cit. pp.30-1. Hofer's Caste and State in Nepal discusses the legal basis of these terms in the Muluki Ain of 1854, see in particular pages 167-9.
7. Gutschow and Kölver pointed out (Ordered Space: 42) that the Jogi constitute something of an anomaly, but explained it merely by citing the fact that they are needed for death rites.

8. See the map on p. 155 of Stadtraum und Ritual.
9. Gutschow and Kölver, Ordered Space, p. 36: "It is a declared aim of Hindu town planning during the Middle Ages to realize and embody transcendental concepts within in framework of a town." Clearly the classical texts and Medieval cities were produced by the same tradition. But were these texts used normatively, as a set of architectural guidelines by the builders and planners, or were they merely post hoc codifications of structures which kings and priests and carpenters were capable of producing on their own?
10. This point had already been made by Macdonald and Stahl, Newar Art, p. 116.
11. Macdonald and Stahl (Newar Art: 118) expressed it epigrammatically "House-space and town-space are envisaged in the same terms. One is smaller than the other: both have the same structure."

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